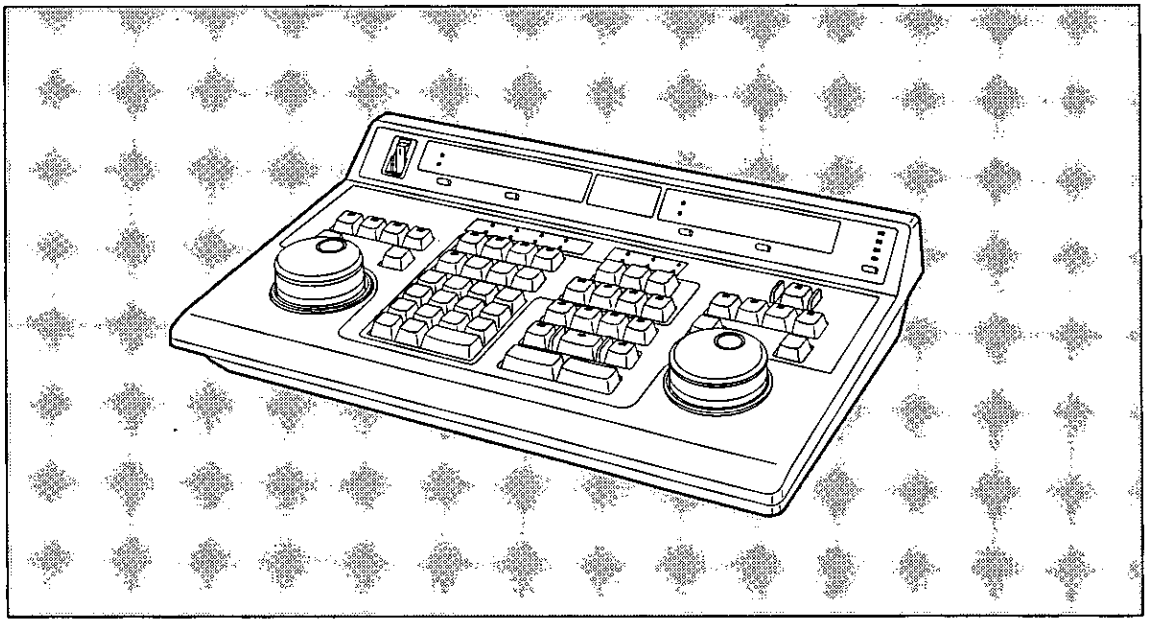
Operating Instructions

Editing Controller

3rd Edition

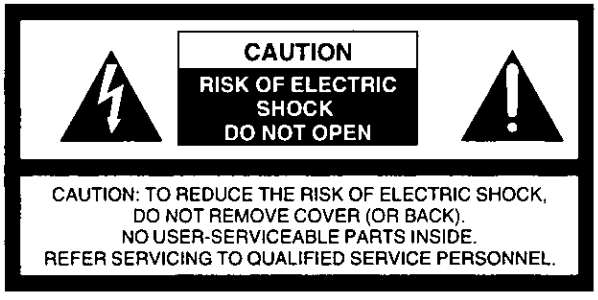
Model AG-A850P



Panasonic®

Before attempting to connect, operate or adjust this product, please read these instructions completely.

Thanks for purchasing the Panasonic Editing Controller


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

WARNING:
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

FCC NOTE:
This device complies with Part 15 of the FCC Rules. To assure continued compliance follow the attached installation instructions and do not make any unauthorized modifications.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION:
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

is the safety information.

Editing When the Equipment is Connected to a VTR
If the VTR is fitted with a control switch, set it to the "REMOTE" position.
When making edits, only operate the VTR through the Editing Controller.

Table of Contents

For Your Safety 2

Controls and their functions 4

System connections and settings 14

1. System connections 14
2. System settings 17

Editing operations 18

1. Basic flow of editing operations 18
2. Types of editing modes and explanatory diagrams 19
3. Operating procedure for cut editing 20
4. Operating procedure for A/B roll editing 21

Editing options 25

1. Multi-recorder editing 25
2. Multi-event editing/Open-end editing 26
3. Park and edit/Sync roll editing 27
4. Slow-motion editing 28
5. Single-action slow-motion playback and auxiliary source (AUX) editing 29
6. Audio split editing 30
7. GPI setting 32
8. First editing/TC insert editing 34

Auxiliary functions 35

1. Edit point checking (IN, OUT DUR, LAP, GO TO) 35
2. Revising and clearing edit data 36
3. Entering and calling edit data 37
4. LAST X, LAST ED and TOTAL functions 38
5. T SET/CORCT/TRACK 39
6. AG-A850 settings (SET UP, CONFIG) 40
7. Monitor display switching (INFO, DISP, STATUS DISP) 42

Data management 43

1. Clearing edit data 43
2. Listing edit data (LIST) 44
3. Transferring edit data to an external destination (DUMP) Loading edit data from an external source (LOAD) 48

Appendix A Table of System Settings 51

Appendix B Table of Key Functions 68

Appendix C Table of Error Displays 76

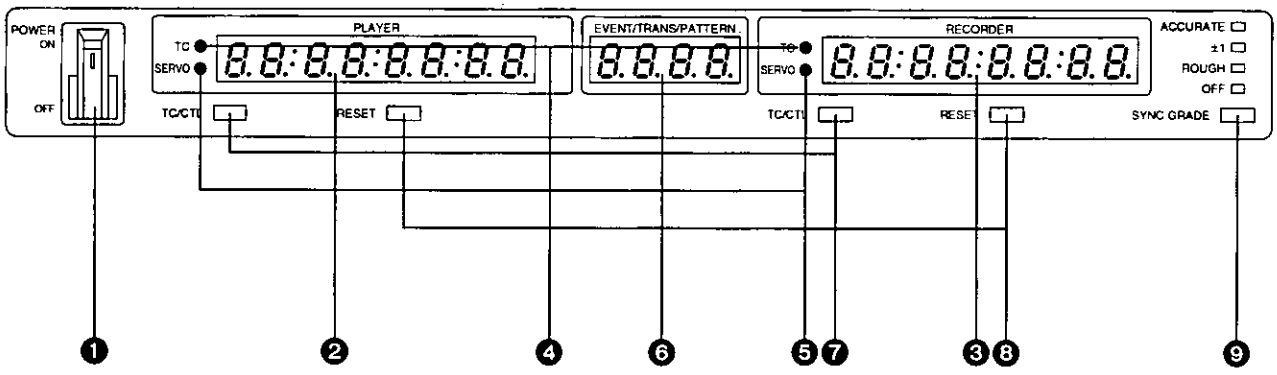
Appendix D VTR and Switcher Settings 78

Appendix E Troubleshooting 82

Appendix F Connector Signals 86

Specifications 87

Counter Section



1) Counter unit

❶ POWER switch
When this is pressed to the ON position, the power is supplied to the unit; conversely, when it is pressed to the OFF position, the power is switched off.

❷ Player time display
This indicates the edit point or current tape position of the player VTR.

❸ Recorder time display
This indicates the edit point or current tape position of the recorder VTR.

❹ TC display
When lit, the time codes are shown in the time display units ❷ and ❸. When off, the CTL is shown. Each time the TC/CTL button ❼ is pressed, the TC display is switched to the CTL display or vice versa.

❺ SERVO lamp
This is lit when the tape is running in the servo lock mode.

❻ EVENT/TRANS/PATTERN display
This displays the event number. The transition time or pattern number can also be displayed here.

❼ TC/CTL button
This switches the time display of the VTR's tape position to time code (TC) or CTL. If the VTR is not equipped with a time code function, CTL is always set. In this case, the display will not be switched even when this button is pressed.

❽ RESET button
This resets the time display at the CTL setting.

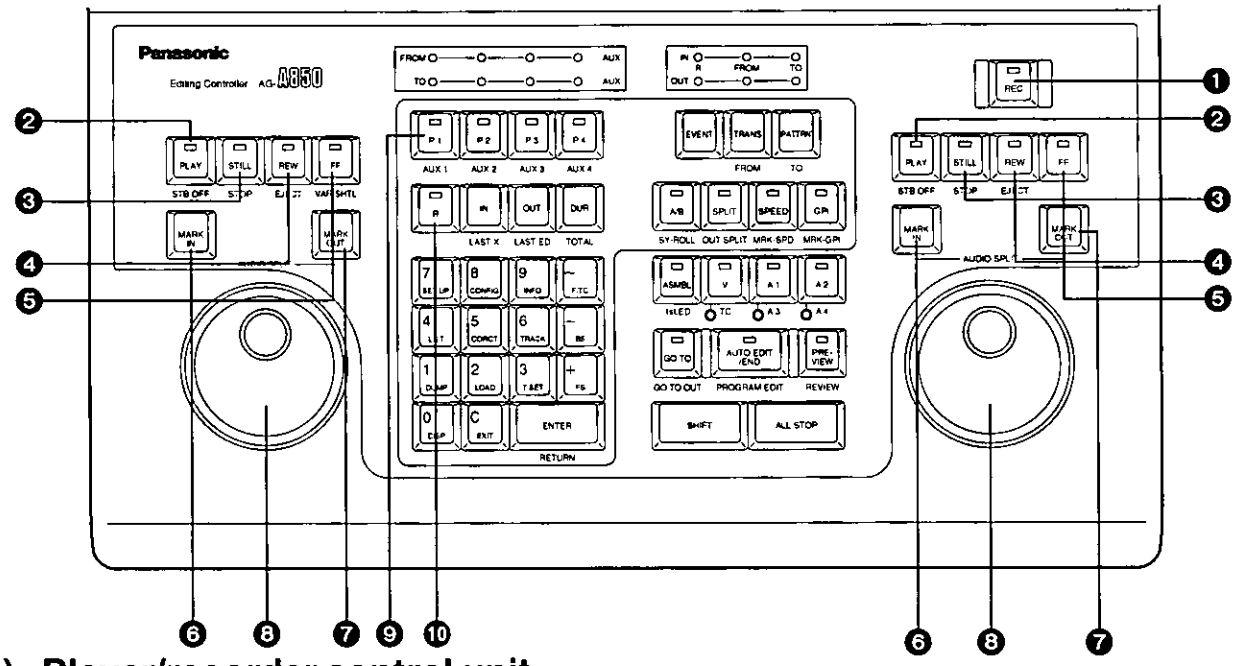
❾ SYNC GRADE button/status display lamps
This button selects the accuracy of synchronization during editing, and the corresponding status display lamp lights to indicate the selection. When the button is set to any position except OFF, supply the external reference signal to the REF VIDEO IN connector.

ACCURATE: ..... For a synchronization accuracy of +/−0 frame.

+/−1: ..... For a synchronization accuracy of +/−1 frame.

ROUGH: ..... Once errors are eliminated during the synchronization operation, no further synchronization is performed. No warranty for the editing accuracy is given in this mode.

OFF: ..... No synchronization operation. No warranty for the editing accuracy can be given in this mode.



2) Player/recorder control unit

❶ REC button (recorder control unit only)
Recording is commenced when the recorder's PLAY button is pressed while this button is held down. If only this button is pressed while the recorder VTR is in the still-picture mode after the player has been selected by a button in the VTR source selecting unit, the pictures and sound input to the recorder VTR are output to the recorder's monitor.

❷ PLAY/STB OFF button
This plays the tape. When it is pressed while the SHIFT button is held down, the standby off status is established.

❸ STILL/STOP button
This temporarily stops the tape. When it is pressed while the SHIFT button is held down, the tape is stopped.

❹ REW/EJECT button
This rewinds the tape. When it is pressed while the SHIFT button is held down, the tape is ejected from the VTR.

❺ FF/VAR/SHTL button
This fast forwards the tape. When this button on the player is pressed while the SHIFT button is held down, operation is switched from the VAR mode to SHTL mode or vice versa when the dial is in the SHTL mode. (VAR/SHTL applied to player operations only.)

❻ MARK IN button
This reads the VTR's time code or CTL and sets the edit IN point.
The audio split IN point is set when this button is operated while the SHIFT button is pressed.

❼ MARK OUT button
This reads the VTR's time code or CTL and sets the edit OUT point.
The audio split OUT point is set when this button is operated while the SHIFT button is pressed.

❽ Search dial
This is used to find edit point pictures while adjusting the tape travel speed. There are JOG mode and SHTL/VAR mode, and they can be selected by pressing the dial. The JOG mode is selected when the dial is pushed to the "in" position; the SHTL/VAR mode is selected when the dial is released to the "out" position.

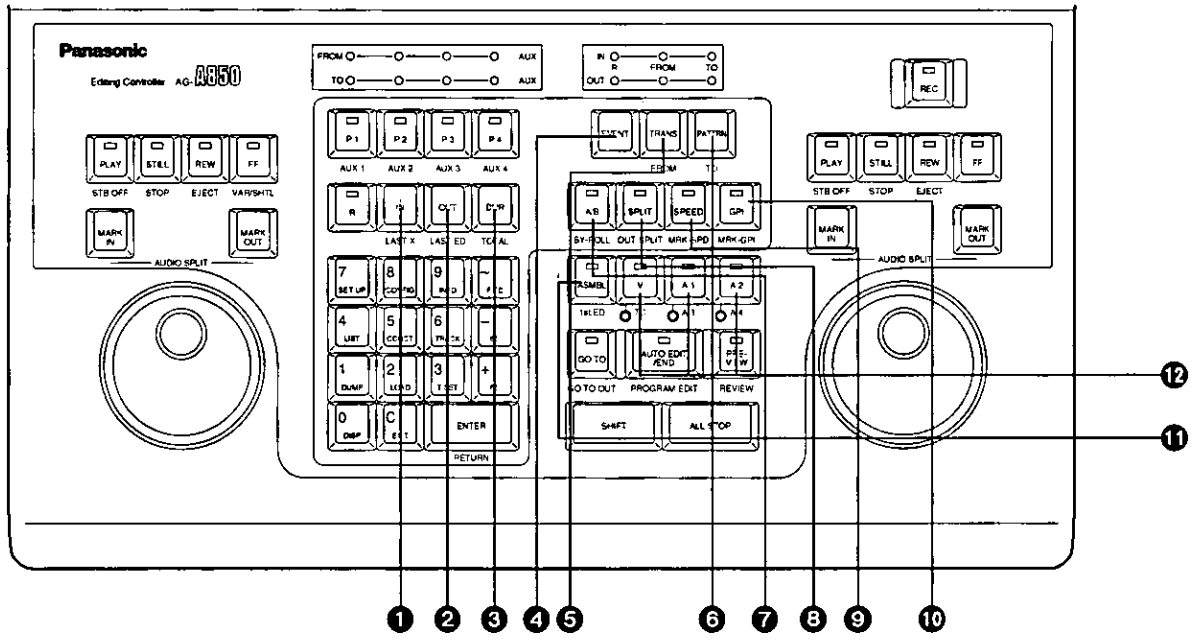
- **JOG [jog mode]**
  The tape playback speed is changed in accordance with the speed at which the dial is turned. The tape is played in the forward direction when the dial is turned clockwise and in the reverse direction when turned counterclockwise.
- **SHTL/VAR [shuttle/variable mode]**
  The tape play speed changes in response to the angle to which the dial is rotated. The tape is played in the forward direction with when the dial is rotated clockwise and in the reverse direction when it is rotated counterclockwise.

3) VTR source selecting unit

(Not used in the limited operation mode)

❾ P1/AUX1, P2/AUX2, P3/AUX3, P4/AUX4 buttons
These are used for performing the edit setting and selecting the VTRs to be controlled by the player control unit. When one of these button is operated while the SHIFT button is held down, the corresponding auxiliary source is selected to perform the edit settings.

❿ R button
This is selected to perform the edit settings for the recorder.



4) Edit setting unit

(Not normally used in the limited operation mode; only IN, OUT and DUR displays provided)

❶ IN/LAST X button
This sets and displays the edit IN point. When it is pressed while the SHIFT button is held down, an edit point which has been revised is restored to what it was prior to the revision.

❷ OUT/LAST ED button
This sets and displays the edit OUT point. When it is pressed while the SHIFT button is held down, the data which was previewed and edited last is restored.

❸ DUR/TOTAL button
This sets and displays the duration. When it is pressed while the SHIFT button is held down, the total editing time appears on the recorder time display.
The lap time is displayed when this button is operated while the ENTER button is pressed.

❹ EVENT button
This is pressed when an event number is to be changed.

❺ TRANS/FROM button
This is pressed to display or set the transition time. Press it while holding down the SHIFT button to select the source for cut editing or the source to be used first with A/B roll editing (FROM source).

❻ PATTRN/TO button
This is pressed to display or set the pattern number. Press it while holding down the SHIFT button to select the source to be used last with A/B roll editing (TO source).

❼ A/B/SYNC button
This is pressed and its lamp is lighted to perform A/B roll editing.

❽ SPLIT/OUT SPLIT button
This is pressed, its lamp is made to flash, and the audio IN point is input to perform split editing.

❾ SPEED/MARK-SPD button
This is pressed, its lamp is made to flash, and the initial speed is input to perform slow-motion editing.

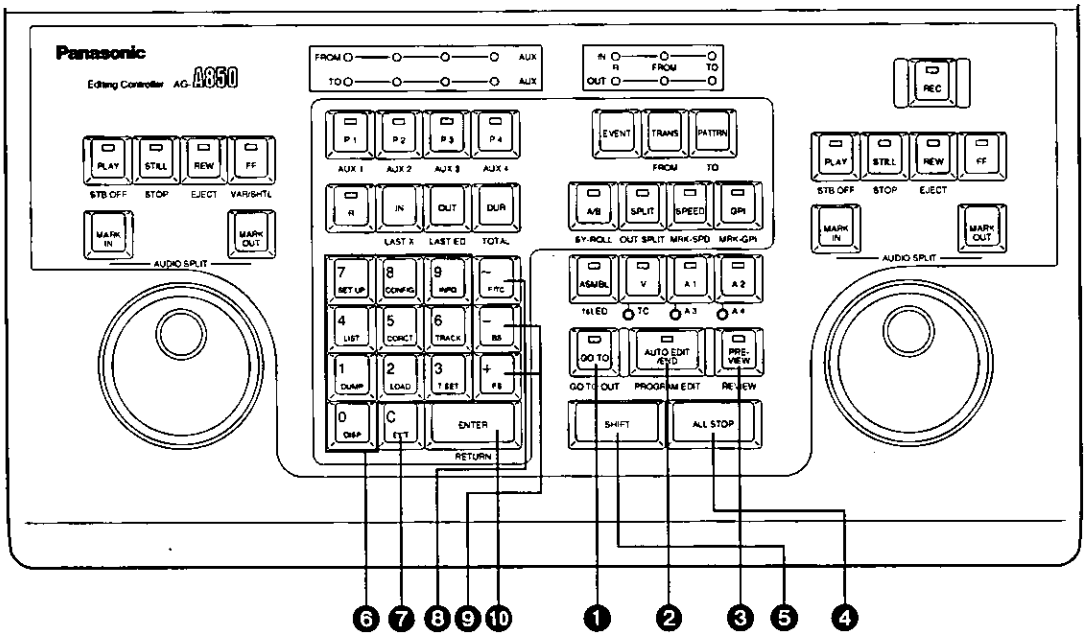
❿ GPI/MARK-GPI button
This is pressed and its lamp is made to flash to set the timing at which GPI is to be output. The DSK setting is also performed using this button.

5) Editing mode setting unit

⓫ ASMBL/1st. ED button
This is pressed and its lamp is lighted to perform assemble editing. When it is pressed again, its lamp goes off, and the assemble setting is released. When insert editing has been set, first release the insert setting and then press this button.

⓬ V/TC, A1/A3, A2/A4 buttons
These are pressed and their lamps are lighted when performing insert editing. More than one lamp can be lighted except for the TC. When all the lamps are off, the insert setting is released. When assemble editing has been set, first release the assemble setting and then press these buttons.

V: For inserting video.
A1–A4: For inserting audio channels 1 to 4.
TC: For inserting the time code.



6) Automatic editing control unit

❶ GOTO/GO TO OUT button
When the edit IN point has been set, that position on the tape is searched by pressing this button. It can also be used to search an edit OUT point or any point on the tape.

❷ AUTO EDIT/END/PROGRAM EDIT button
This is pressed to perform automatic editing. When it is operated while the SHIFT button is held down, multi-event editing is performed.

❸ PREVIEW/REVIEW button
This is pressed to rehearse the editing. Press it while holding down the SHIFT button to review (check) the editing.

❹ ALL STOP button
This stops all the VTRs. During editing (preview, edit or review), the operation in progress is suspended.

❺ SHIFT button
To use the function indicated at the bottom of one of the buttons (below the center in the number input unit), press the button concerned while holding down the SHIFT button.

7) Numerical input unit (when buttons pressed respectively)

(Not used in the limited operation mode)
To use the function marked at the top left of any of the buttons (0 to 9, C, +, − and ~) except for ENTER, simply press the button concerned.
To use the function marked below the center (DISP, EXIT, LIST, etc.), press the button concerned while holding down the SHIFT button.

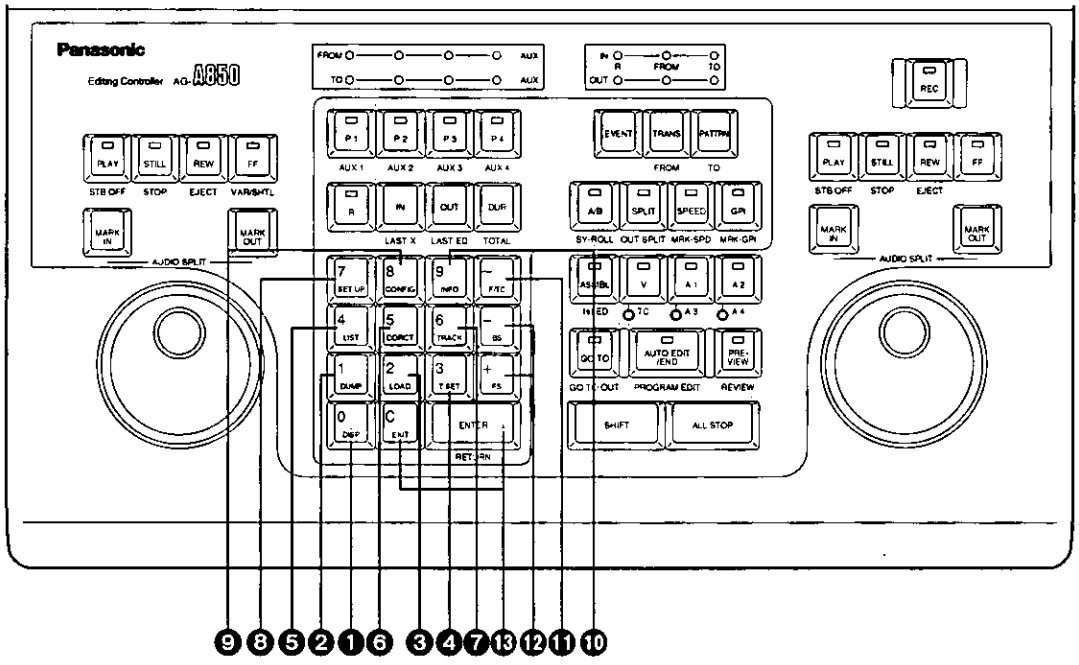
❻ 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 (numerical input keys)
These are used to input and set the edit data with numbers.

❼ C (CLEAR)
This is used to clear numbers or edit data which has been input.

❽ ~
This is used to input the start or end event number for deleting or moving the edit data (EDL).

❾ +, −
This is used to change the edit data or select an item for set-up.

❿ ENTER
This is used to enter the edit data, etc. using numbers.



❾ ❽ ❺ ❷ ❶ ❻ ❸ ❹ ❼ ⓭ ⓬ ⓫ ⓾

8) Numerical input unit (with SHIFT button pressed)

(These button combinations are not normally used in the limited operation mode. Only the DISP, SET UP and INFO functions are available.)

❶ **DISP (SHIFT +0)**
This switches the screen display on the monitor.

❷ **DUMP (SHIFT +1)**
This is pressed to transfer edit data (EDL) to a personal computer or other external device.

❸ **LOAD (SHIFT +2)**
This is pressed to load edit data (EDL) from a personal computer or other external device into the internal EDL memory.

❹ **T SET (SHIFT +3)**
This sets the initial value for the time (TCG) which is to be recorded with TC insert editing, etc.

❺ **LIST (SHIFT +4)**
This is used to delete, move or copy edit data.

❻ **CORCT (SHIFT +5)**
This is pressed to change edit data already entered in the EDL memory.

❼ **TRACK (SHIFT +6)**
This is pressed to conduct time tracking.

❽ **SET UP (SHIFT +7)**
This is used to perform the settings (SET UP) for the entire system.

❾ **CONFIG (SHIFT +8)**
This is used to perform the settings (CONFIG) for each VTR.

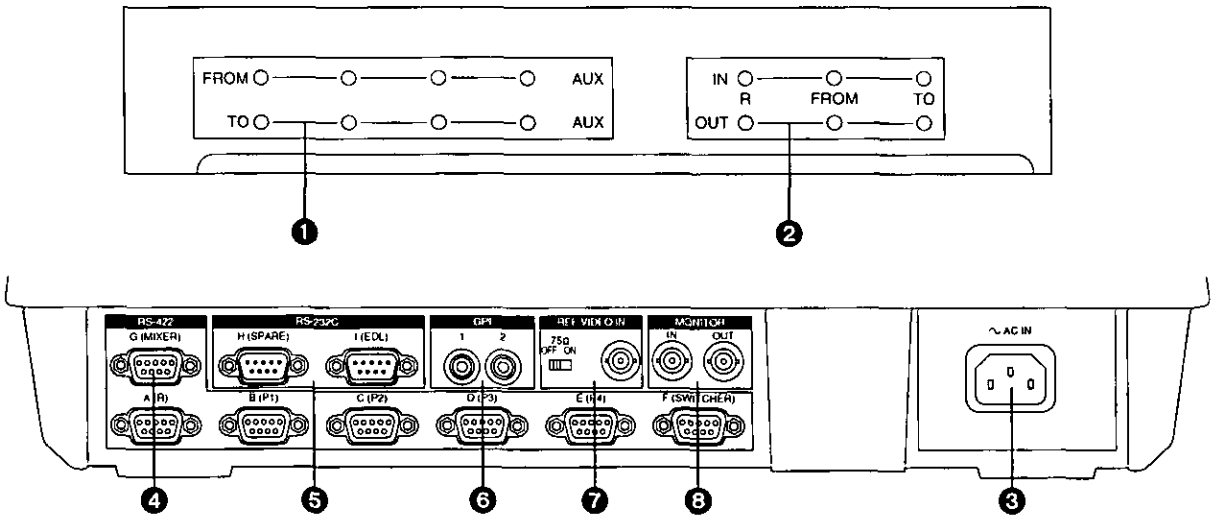
❿ **INTO (SHIFT +9)**
This displays the error messages, etc.

⓫ **F/TC (SHIFT +~)**
When numbers are to be input, this switches between input on a time code basis or input in frame units.

⓬ **FS, BS (SHIFT+"+", SHIFT+"−")**
This is pressed to change the event to the preceding or subsequent event. In the SET UP mode, it changes the page.

⓭ **EXIT, RETURN (SHIFT+C, SHIFT+ENTER)**
These are pressed to terminate the input of edit data, etc. at any time.
In the SET UP or CONFIG mode, the settings are entered and the mode is exited when RETURN is pressed; the settings are cleared and the mode is exited when EXIT is pressed.

Edit Data Setting Display Section/Connector Panel Section



9) Edit data setting display unit

❶ Edit source setting display

The lamp immediately above the VTR/source selector key corresponding to the selected source (P1, P2, P3 or P4) lights on this display. When an auxiliary source (AUX1, AUX2, AUX3 or AUX4) has been selected, the AUX lamp will also light.

The top level (FROM) displays the FROM source for cut editing and A/B roll editing; the bottom level (TO) displays the TO source for A/B roll editing.

Displays of lamps and setting modes

Horizontal row of flashing red lamps	No source setting
Flashing red lamp	Source now set but edit points not set
Lighted red lamp	One edit point of source now set
Lighted yellow lamp	All edit points of source now set
Lighted green lamp	All edit points of edit data now set

Editing is possible provided that the lamp lights up green. Even when the lamp flashes or lights up in red or yellow, editing is performed in the cases described below.

- When taking hold of data which has not been set on the basis of another edit point, the edit data will be automatically processed and edited.
- When editing is performed without the edit OUT point having been set, press the MARK OUT button or AUTO EDIT/END button during editing, and set the edit OUT point. (Open-ended editing)
- When only the source VTR is to be set and editing is to be performed at the present tape position (park and edit)

❷ Edit point setting display

The lamps for the edit points which have been set for the recorder VTR, FROM source and TO source light on this display. Both the IN and OUT point lamps light when the edit IN or OUT point and the duration have been set.

10) Connector panel unit

❸ AC power socket

The accessory power cord is used to connect this socket with the AC 120V power outlet.

❹ RS-422 connector

A VTR, video switcher or audio mixer is connected here.

❺ RS-232C connector

A personal computers or other external device is connected here. The H (SPARE) connector is not used.

❻ GPI connectors

External devices are connected to these connectors from which trigger signals are output.

❼ REF VIDEO IN connector/75-ohm termination switch

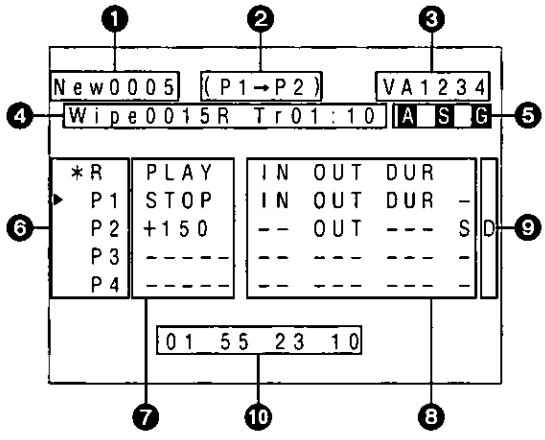
The external reference signal (black burst or color bar signal) is input here for systems requiring a high level of editing accuracy. Set the 75-ohm termination switch to ON when the signals are to be terminated by this unit; set it to OFF when using a T-type BNC connector to split the signals.

❽ MONITOR IN/OUT connectors

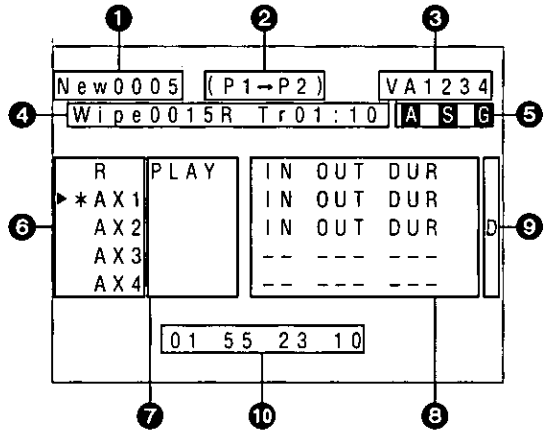
The statuses and other information can be displayed if a TV monitor is connected to MONITOR OUT. It is also possible to output the pictures, which are input to MONITOR IN, to MONITOR OUT. (DISP function)

11) Monitor displays

When a monitor is connected to the AG-A850, the VTR statuses, edit point settings and other information can be displayed. The pictures which have been input to MONITOR IN can also be displayed by pressing the DISP (SHIFT +0) button.



Normal status display



Screen while AUX is selected

(1) Status displays

The following statuses are normally displayed when VTR operation or editing is performed.

❶ Event number
- **New:** An event not entered in the EDL memory
- **R:** An already edited event

❷ Source (FROM source→TO source)

❸ Editing mode
- **VA1234:** Insert editing
  - V; Video
  - A1–4; Audio ch 1–4
- **ASMBL:** Assemble editing
- **TC:** TC insert editing
- **1st.ED:** "First edit" editing

❹ Effects
- **Type** **Cut:** cut;
  Diss: dissolve;
  Wipe: wipe
- **Pattern code** **R:** Reverse pattern
- **Transition** **Tr:** Indicated in seconds+frames

❺ Additional functions
- **A:** Appears during audio split editing.
- **S:** Appears during slow-motion editing.
- **G:** Appears when GPI has been set.

❻ VTR/source selections
- **►:** Indicates the VTR which can be controlled at the player control unit.
- **✳:** Indicates the VTR/source involved in the edit point entry or GOTO operation.
- **R:** Recorder VTR
- **P1–P4:** Player VTRs
- **R1–R4:** Slaves VTRs

❼ VTR statuses

The statuses of the VTRs are displayed here.

Monitor Display Section

❼ VTR statuses

The statuses of the VTRs are displayed here.

VTR status display	VTR status
CUE	Tape cueing in progress (CUE-UP)
EDIT	Editing in progress
EE	EE mode
EJECT	Cassette ejection in progress
EPLAY	Edit play in progress
FF	Fast forwarding of tape in progress
JOG	Jog mode
LOCAL	CONTROL switch on VTR has been set to LOCAL.
PLAY	Playback in progress
REC	Recording in progress
REW	Rewinding of tape in progress
SHTL	Shuttle mode
STBOF	Standby off mode
STILL	Still-picture playback in progress
STOP	Tape is now stopped.
SYNC	Synchronization in progress
T.OUT	Tape has not been loaded.
−100 to +300	VAR mode (number denotes tape travel speed, +100=normal tape speed=1X)

❽ Edit data registration

The edit data which has been set for each VTR/source is displayed here.

IN: Appears when the edit IN point has been set.
OUT: Appears when the edit OUT point has been set.
DUR: Appears when the duration has been set.
S: Appears when the initial speed has been set.

❾ DF/NDF, CF modes

The DF or NDF status of the tape and the frame shift amount during editing are displayed here.

<NTSC system>

•When CF editing is not conducted

The display changes in accordance with the frame mode.

Display	Tape and system frame mode statuses
No display	Statuses match.
D	Tape is in the drop frame status.
N	Tape is in the non-drop frame status.

•When CF editing is conducted (with ALL VTR/R ONLY as reference)

The display changes in accordance with the frame mode.

Display	Tape and system frame mode statuses
a	Statuses match.
d	Tape is in the drop frame status.
n	Tape is in the non-drop frame status.

•When CF editing is conducted (with time code as reference)

The display changes in accordance with the frame mode and shift amount in the color frame mode.

Display	Tape and system frame mode statuses	Color frame shift amount
No display	Statuses match.	0 frame
D	Tape is in the drop frame status.	0 frame
N	Tape is in the non-drop frame status.	0 frame
+	Statuses match.	+1 frame
D	Tape is in the drop frame status.	+1 frame
N	Tape is in the non-drop frame status.	+1 frame

<PAL system>

•When CF editing is not conducted

No displays appear.

•When CF editing is conducted (with ALL VTR/R ONLY as reference)

The "a" display appears.

•When CF editing is conducted (with time code as reference)

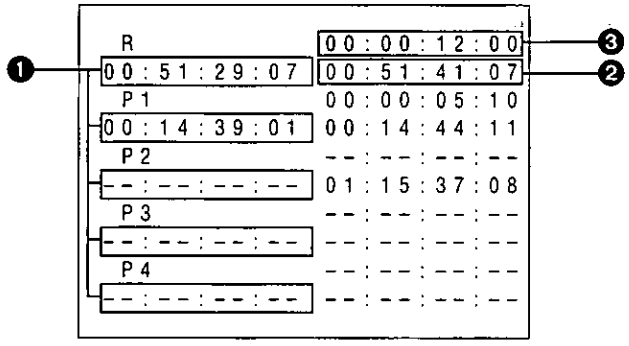
The display changes in accordance with the frame mode and shift amount in the color frame mode.

Display	Color frame shift amount
No display	0 frame
+	+1 frame
#	+2 frame
−	−1 frame

❿ Input data

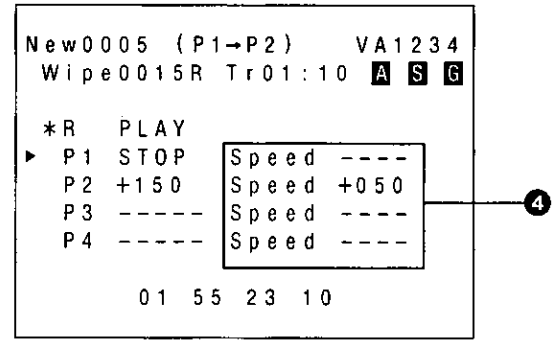
The data which has been input using the numeric input keys is displayed here.
In addition, the lap time is displayed while editing is in progress.

Monitor Display Section

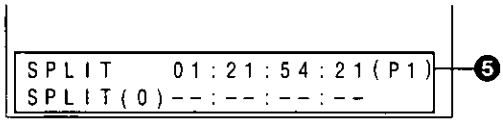


Screen while IN, OUT and DUR settings are input

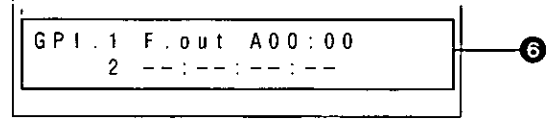
*For (2) and (3), DUR is indicated on the top level and OUT on the bottom level for each VTR.



Screen while SPEED setting is input



Screen while SPLIT setting is input



Screen while GPI setting is input

(2) Edit setting displays

The following displays appear when edit points, initial speed, etc. are to be set.

❶ Edit IN point

The edit IN point is displayed here. Its status can be determined from the punctuation mark used between the seconds and frames of the time code.

":": An edit point which has been set.

".": An edit point which has been automatically calculated from another edit point.

",": An edit point which has been controlled by the time track.

❷ Edit OUT point

The edit OUT point is displayed here. As with the edit IN point, its status is clear from the punctuation mark used between the seconds and frames of the time code.

❸ Duration

The editing duration is displayed here. As with the edit IN point, its status is clear from the punctuation mark used between the seconds and frames of the time code.

❹ Initial speed

This indicates the initial speed in slow editing.

❺ SPLIT settings

SPLIT: Splitting at IN point side

SPLIT (O): Splitting at OUT point side

(R, P1–P4): This indicates the VTR serving as the reference when the time code has been set.

A: This appears together with the split value when the audio edit point is ahead of the video edit point.

D: This appears together with the split value when the audio edit point is behind the video edit point.

❻ GPI settings

Reference points

R, P1–P4: This indicates the VTR serving as the reference when the time code has been set.

Fin: This indicates that the edit IN point of the FROM source has been set as the reference.

Fout: This indicates that the edit OUT point of the FROM source has been set as the reference.

Tin: This indicates that the edit IN point of the TO source has been set as the reference.

Tout: This indicates that the edit OUT point of the TO source has been set as the reference.

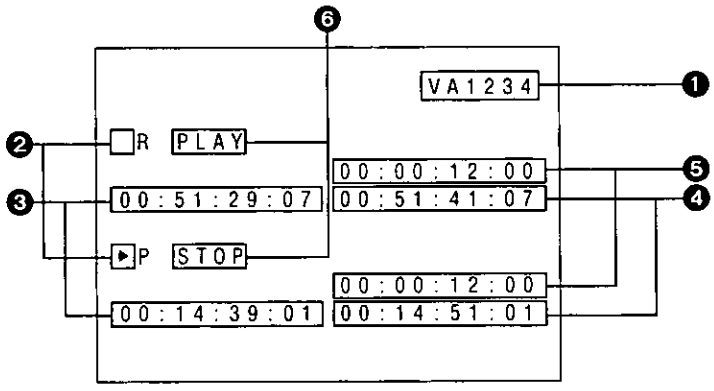
Rin: This indicates that the edit IN point of the recorder VTR has been set as the reference.

Rout: This indicates that the edit OUT point of the recorder VTR has been set as the reference.

Relative settings

A: This appears together with the relative time when the GPI has been set earlier than the reference point.

D: This appears together with the relative time when the GPI has been set later than the reference point.



Status displays in limited operation mode

(3) Status displays in limited operation mode

The following status are displayed in the limited operation mode.

❶ Editing mode

VA1234: Insert editing
V: Video
A1–4: Audio ch 1–4
ASMBL: Assemble editing
TC: TC insert editing
1st.ED: "First edit" editing

❷ VTR selection

►: Indicates the VTR to be involved in the GOTO operation. The VTR operated last (PLAY, STILL, FF or REW) is selected.

❸ Edit IN point

The edit IN point is displayed here. Its status can be determined from the punctuation mark used between the seconds and frames of the time code.

":": An edit point which has been set.
".": An edit point which has been automatically calculated from another edit point.
",": An edit point which has been controlled by the time track.

❹ Edit OUT point

The edit OUT point is displayed here. As with the edit IN point, its status is clear from the punctuation mark used between the seconds and frames of the time code.

❺ Duration

The duration is displayed here. As with the edit IN point, its status is clear from the punctuation mark used between the seconds and frames of the time code.

❻ VTR statuses

The statuses of the VTRs are displayed here.

VTR status display	VTR status
CUE	Tape cueing in progress (CUE-UP)
EDIT	Editing in progress
EE	EE mode
EJECT	Cassette ejection in progress
EPLAY	Edit play in progress
FF	Fast forwarding of tape in progress
JOG	Jog mode
LOCAL	CONTROL switch on VTR has been set to LOCAL.
PLAY	Playback in progress
REC	Recording in progress
REW	Rewinding of tape in progress
SHTL	Shuttle mode
STBOF	Standby off mode
STILL	Still-picture playback in progress
STOP	Tape is now stopped.
SYNC	Synchronization in progress
T.OUT	Tape has not been loaded.
−100 to +300	VAR mode (number denotes tape travel speed, +100=normal tape speed=1X)

System Connections

Not only VTRs with a 9-pin remote control capability but a video switcher and other devices can be connected to the AG-A850.

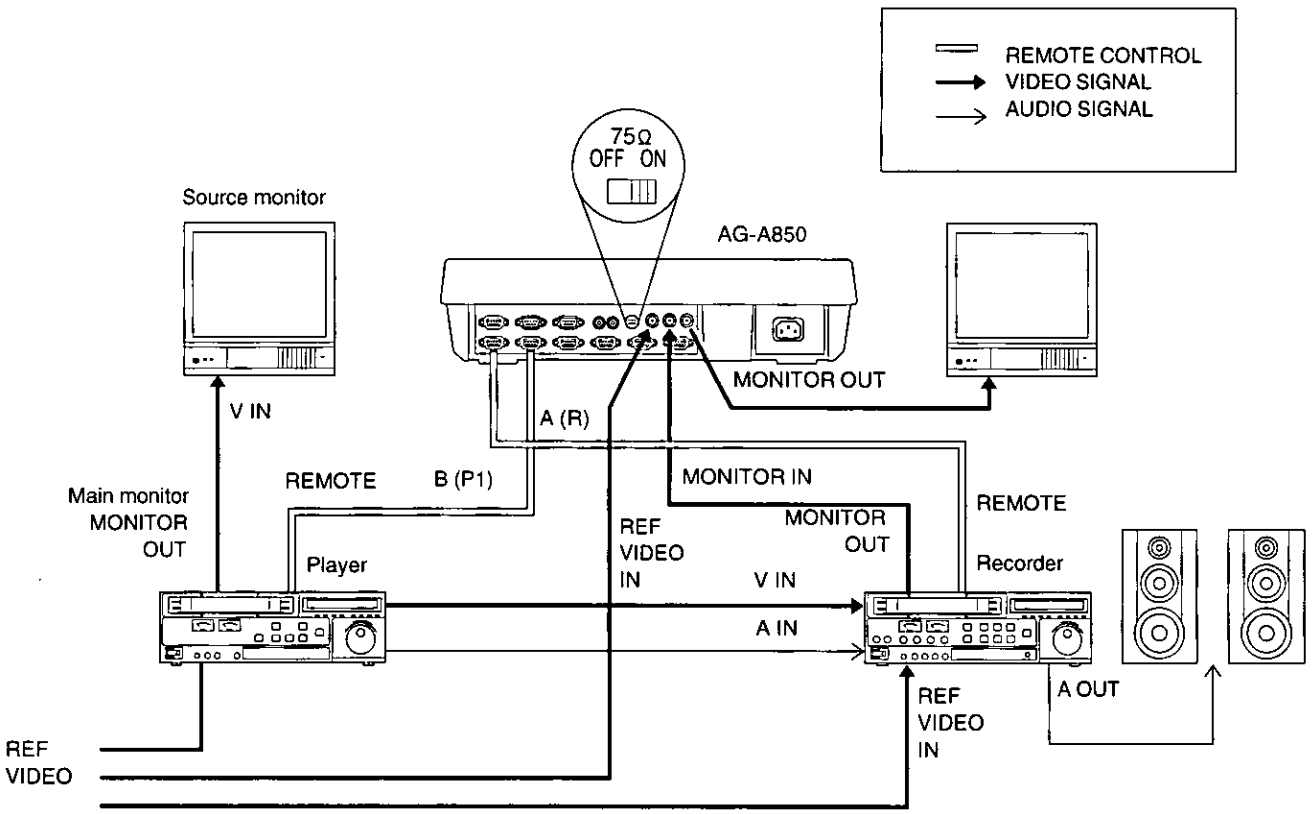
This section describes the connections through three examples of typical system configurations.

1. Cut editing system using a player and a recorder
2. A/B roll editing system using 4 players and a recorder
3. Multi-recorder A/B roll editing system using 2 players and 3 recorders

*Refer to the specifications at the end of this manual for the models which can be connected. Address any queries on other devices which are supported either to your dealer or to your nearest service center.

Cut editing system using a player and a recorder

SET UP must be changed if the system is to be used in the limited operation mode. For further details, refer to "FUNCTION in the tables of system settings" and "Troubleshooting" (page 82).



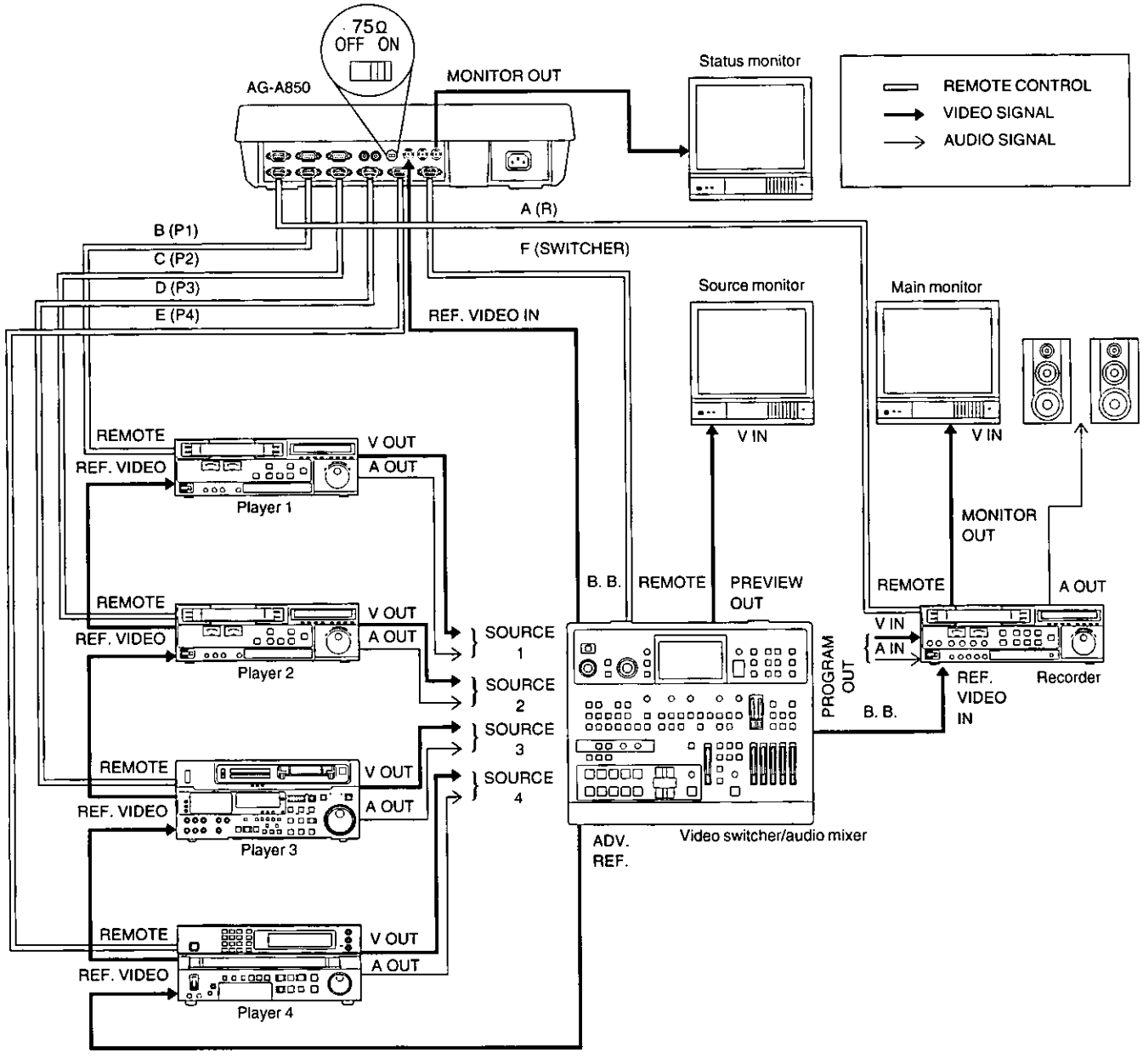
When using the AG-A850 in the limited operation mode, be absolutely sure to connect the recorder's control signal to A (R) and the player's VTR control signal to B (P1).

The signal which is input to the REF. VIDEO IN connector of the recorder VTR may differ depending on the actual VTR model used. For further details, refer to the VTR's Operating Instructions.

The REF VIDEO connector on the AG-A850 editing controller must be connected.
When it cannot be connected, perform editing with the SYNC GRADE button set to the OFF position.

System Connections

A/B roll editing system using 4 players and a recorder



Set the 75-ohm switch on the VTR in which the REF. VIDEO signal is to be terminated to ON; set the same switch on the other VTRs to OFF.

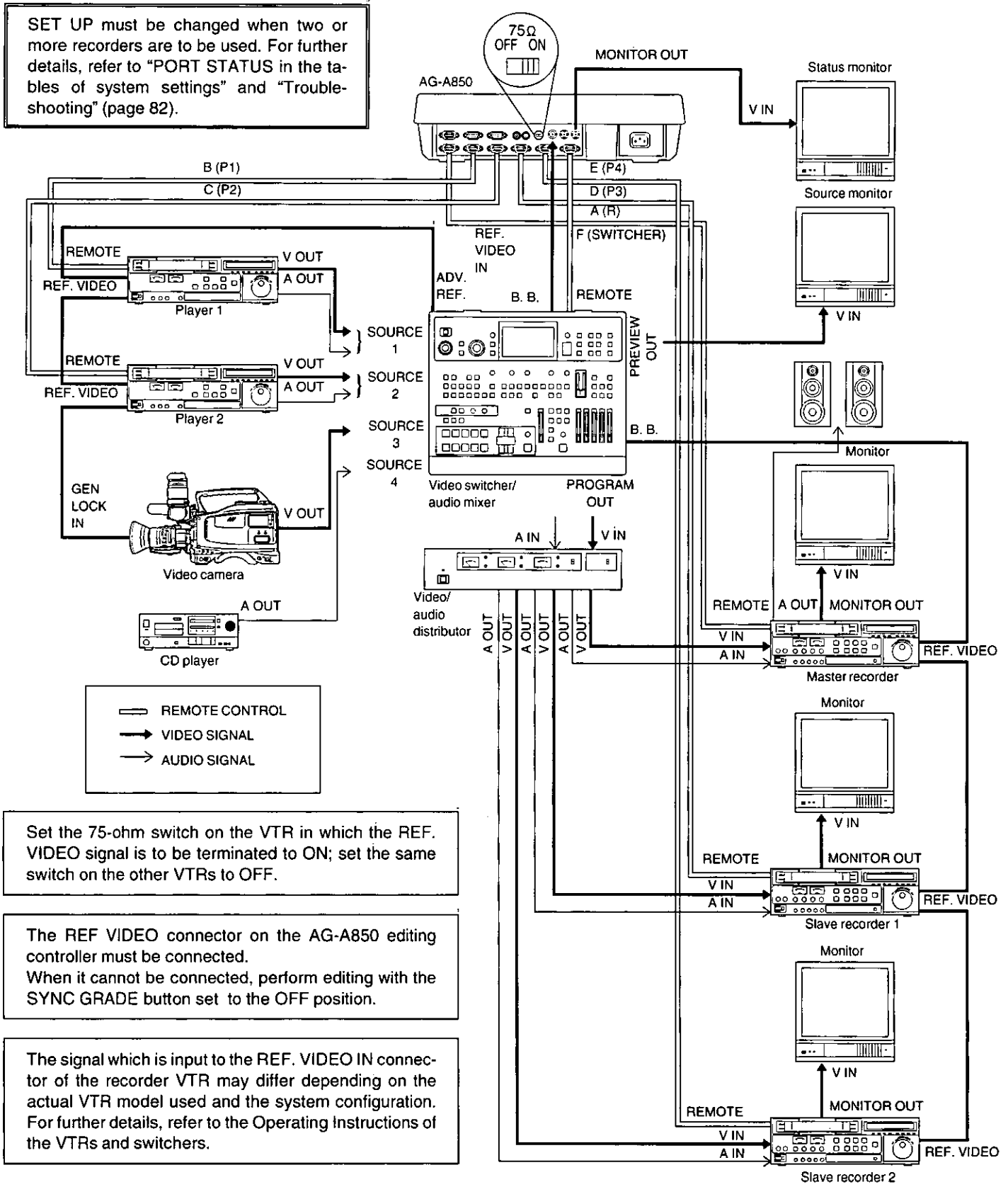
The signal which is input to the REF. VIDEO IN connector of the recorder VTR may differ depending on the actual VTR model used and the system configuration. For further details, refer to the Operating Instructions of the VTRs and switchers.

The REF VIDEO connector on the AG-A850 editing controller must be connected.
When it cannot be connected, perform editing with the SYNC GRADE button set to the OFF position.

System Connections

Multi-recorder A/B roll editing system using 2 players and 3 recorders

SET UP must be changed when two or more recorders are to be used. For further details, refer to "PORT STATUS in the tables of system settings" and "Troubleshooting" (page 82).



Set the 75-ohm switch on the VTR in which the REF. VIDEO signal is to be terminated to ON; set the same switch on the other VTRs to OFF.

The REF VIDEO connector on the AG-A850 editing controller must be connected.
When it cannot be connected, perform editing with the SYNC GRADE button set to the OFF position.

The signal which is input to the REF. VIDEO IN connector of the recorder VTR may differ depending on the actual VTR model used and the system configuration. For further details, refer to the Operating Instructions of the VTRs and switchers.

System Settings

After completing the system connections and before commencing editing operations, perform the settings for the VTRs, switcher and other devices. Only general setting procedures are given below.

1) Player VTR settings

- Tape tracking adjustment
- Adjustment of audio level during playback
- Set the CONTROL switch to the REMOTE(9P) position.
- Set the CF switch to ON (4F or 8F) for color framing editing.

[Reference]

For the settings inherent to specific models, refer to Appendix D (VTR and Switcher Settings).

2) Recorder VTR settings

- Tape tracking adjustment (normally set to the FIX position)
- Adjustment of video and audio levels during recording
- Video and audio INPUT switch settings (set to the positions corresponding to the input signal connectors)
- Time code generator settings (INT, PRESET, FREE RUN)
- In a system with 2 or more recorder VTRs, provide the same tape (time code value, DF/NDF) for use with the slave recorder(s) as with the master recorder. (only NTSC)
- Set the CONTROL switch to the REMOTE(9P) position.
- Set the CF switch to ON (4F or 8F) for color framing editing.

[Reference]

For the settings inherent to specific models, refer to Appendix D (VTR and Switcher Settings).

3) Switcher and mixer settings

- Communication protocol settings for video switcher (BAUDRATE=38400 bps, LENGTH=8 bits, PARITY=ODD, STOP=1 bit)
- Communication protocol settings for audio mixer (BAUDRATE=38400 bps, LENGTH=8 bits, PARITY=EVEN, STOP=1 bit)
- If the switcher has a remote switch, set it to the remote enable position.

[Reference]

For the settings inherent to specific models, refer to Appendix D (VTR and Switcher Settings).

4) AG-A850 settings

- Set the editing accuracy (SYNC GRADE).
  (Set this button to the OFF position when the REF VIDEO signal is not supplied to the AG-A850.)
- Select the display time (TC/CTL) for each VTR.
- Perform the settings for the system to be used in the SET UP mode. [For further details, refer to Appendix A (Table of System Settings).]
- Perform the settings for the tape to be used with each VTR in the CONFIG mode. (Normally, the LTC/VITC setting is used. Set to LTC if the time codes of the tapes to be used differ between LTC and VITC.)

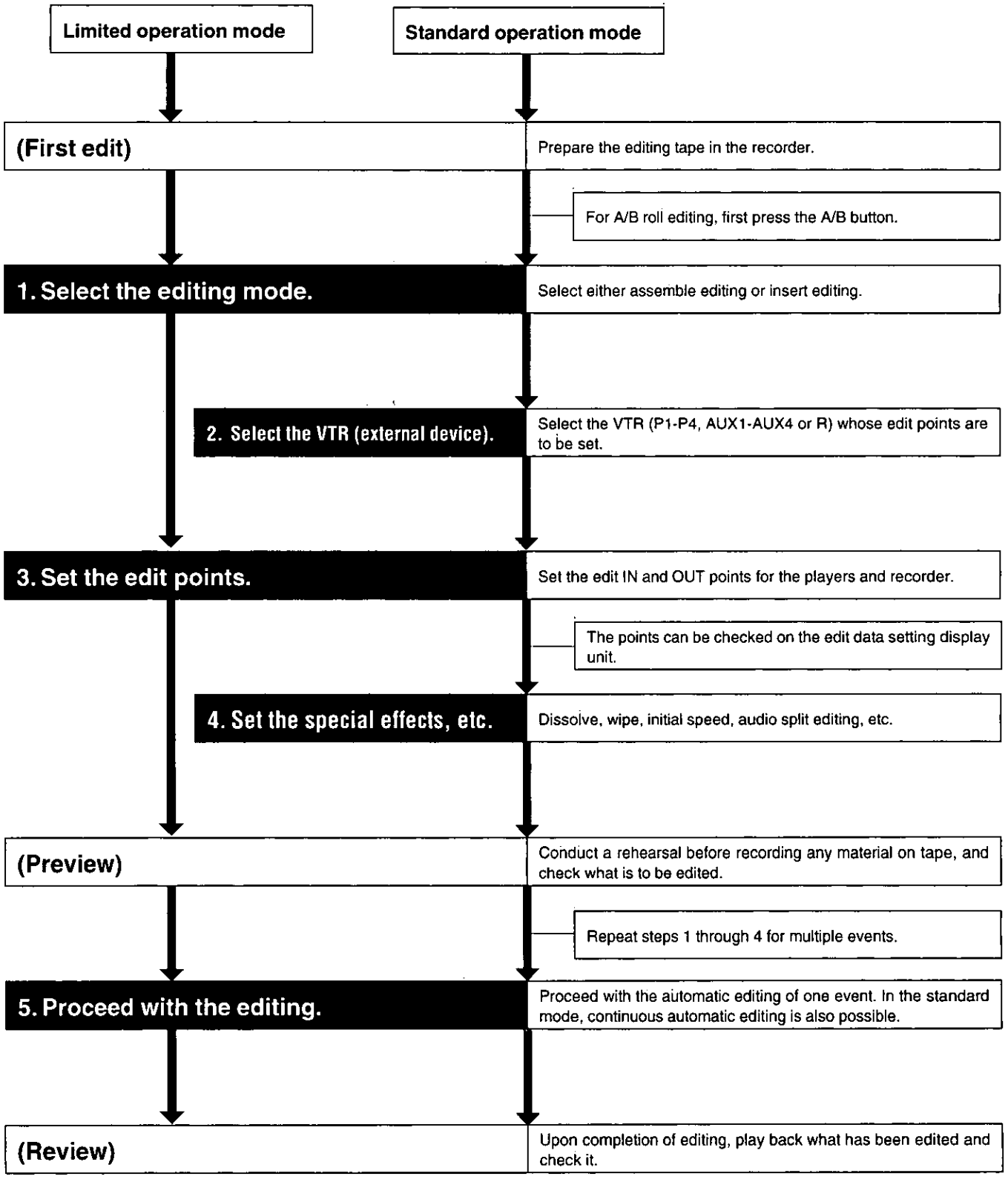
5) System adjustments

Proceed with the following adjustments to make the editing that much more complete.

- TBC adjustments (VIDEO LEVEL, SYNC LEVEL, BURST LEVEL, CHROMA LEVEL and HUE) for each VTR.
- System phase adjustments (H PHASE, SC PHASE and VIDEO PHASE).

Basic Flow of Editing Operations

Basically, an editing operation consists of the following steps described below.

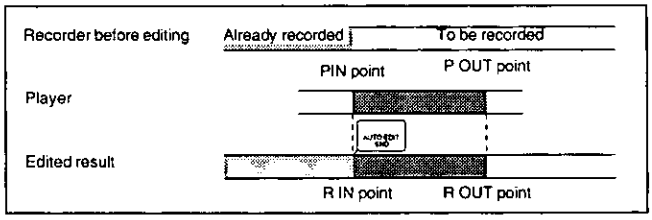

Limited operation mode
Standard operation mode
(First edit)
Prepare the editing tape in the recorder.
For A/B roll editing, first press the A/B button.
1. Select the editing mode.
Select either assemble editing or insert editing.
2. Select the VTR (external device).
Select the VTR (P1-P4, AUX1-AUX4 or R) whose edit points are to be set.
3. Set the edit points.
Set the edit IN and OUT points for the players and recorder.
The points can be checked on the edit data setting display unit.
4. Set the special effects, etc.
Dissolve, wipe, initial speed, audio split editing, etc.
(Preview)
Conduct a rehearsal before recording any material on tape, and check what is to be edited.
Repeat steps 1 through 4 for multiple events.
5. Proceed with the editing.
Proceed with the automatic editing of one event. In the standard mode, continuous automatic editing is also possible.
(Review)
Upon completion of editing, play back what has been edited and check it.

Types of Editing Modes (With Explanatory Diagrams)

The AG-A850 offers the editing modes described below. For further details on each mode, refer to the pages concerned.

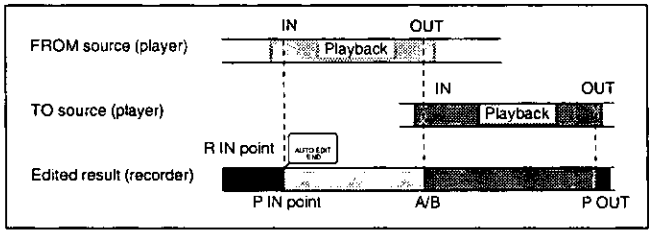
■ Assemble editing mode

Video takes are recorded from the start of the tape one after another mainly on a new tape (recording is possible even on an old tape). This mode is generally used to prepare master tapes.



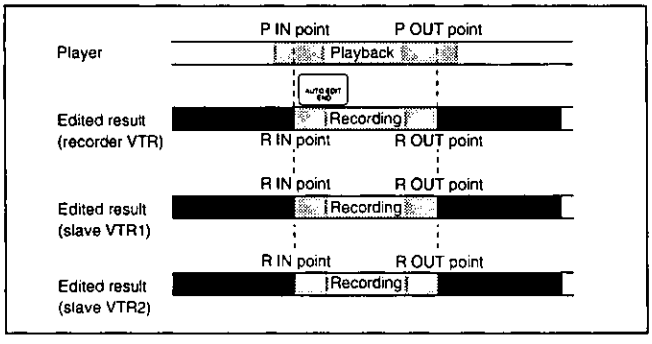
■ A/B roll editing

Two players are simultaneously controlled and switched. By applying special effects at the A/B points, two (moving) pictures can be joined smoothly using the wipe or dissolve effect.



■ Multi-recorder editing

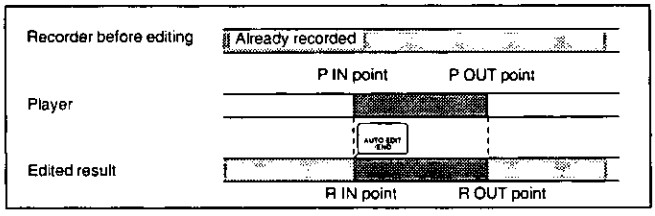
Up to 3 master tapes are prepared simultaneously by a single editing operation. When the edit points are set by the player and recorder, the same edit points as those set by the recorder are set for recording in the VTRs which are set as the slaves. The time code values and DF/NDF modes of the recorder VTR and slave VTRs must match.



■ Insert editing mode

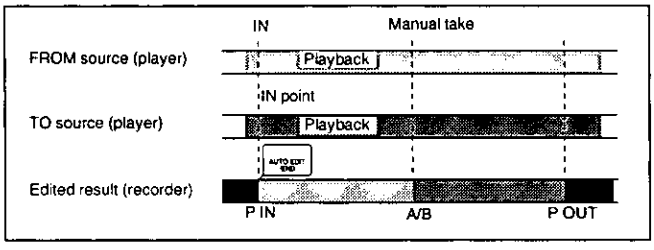
The video takes of another source are recorded onto part of a pre-recorded tape.

Four different signals--V (video), A1 (linear audio CH1), A2 (linear audio CH2) and TC (time code)--can be recorded separately or in combination. The signals must be recorded throughout the whole tape in the recorder.



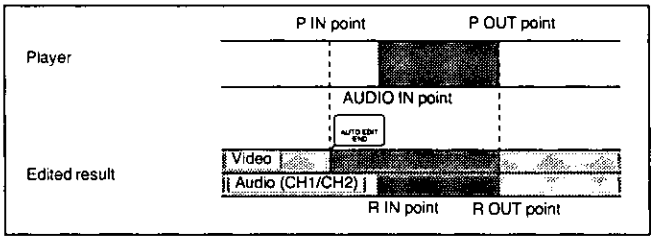
■ Sync roll editing (manual takes)

This is a technique used in the A/B roll mode. The FROM source and TO source are started simultaneously, and A/B switching is performed at any point while monitoring the screen.



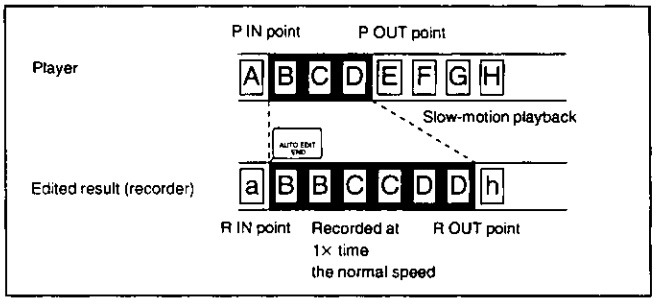
■ Audio split editing

This is a technique which can be used to offset the audio edit points.



■ Slow-motion editing

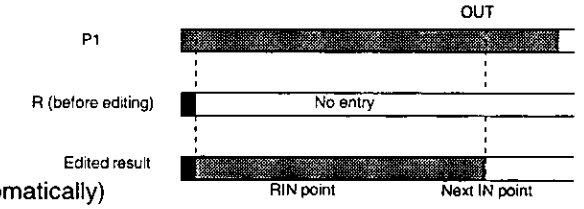
In this editing mode, the pictures played back in slow motion on the player are recorded.



Operating Procedure for Cut Editing

The following set of conditions is used as an example to describe cut editing which is the most basic kind of editing.

Mode: Assemble editing
Source: PLAYER 1 IN: 00:08:32:09
OUT: 00:08:58:18
Recorder: IN: 00:00:00:00
OUT: 00:00:26:09 (calculated automatically)



(First edit) Prepare the editing tape for the recorder.

When editing in the assemble mode, the correct video signals must be recorded before the recorder's IN point of the first event. This is needed to ensure proper pre-rolling.

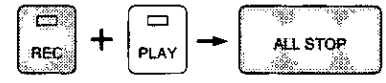
Procedure ❶ ❷

❶ Press the ASMBL button while holding down the SHIFT button.
❷ Press the AUTO EDIT/END button.
(For details, refer to the first edit section.)

When editing in the insert mode, the tape must be formatted and the correct video signals must be recorded through the whole tape.

❶ ❷

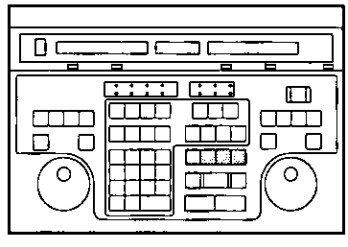
Procedure



❶ Press the PLAY button in the recorder control unit while holding down the REC button.
❷ When the tape has been formatted for the length of time scheduled for editing, press the ALL STOP button.

1. Select the editing mode.

Select the assemble editing mode.



❶ With assemble editing, the video, audio (CH1, CH2) and time code signals are recorded simultaneously. With insert editing, the insert buttons (V, A1, A2, A3, A4) are pressed at this point. These buttons correspond to the video and audio signals: press all the buttons for the signals to be edited.

*Bear in mind that if an S-VHS (VHS) type of VTR is used and the TC setting is used for the VTR's AUDIO CH2 SELECT switch, the normal audio CH2 signals will not be recorded even if the buttons are pressed at this point.

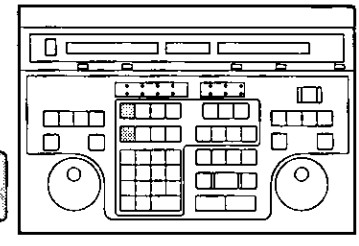
❷ To clear any of the modes, press the corresponding buttons again.

2. Select the VTR (external device).

Select the VTR which is to be operated.
(This is not necessary in the limited operation mode.)

❶

❷ After setting the edit point:

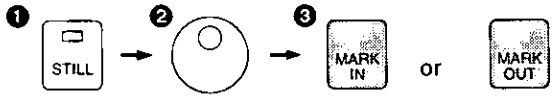


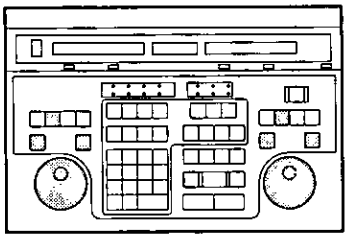
The VTR or VTRs, whether P1-P4, AUX1-AUX4 or R corresponding to the lighted lamp or lamps can be operated by the AG-A850.

3. Set the edit points.

Set these effects using method A in the limited operation mode.

A. Search the edit screen using the search dial, and set the edit points using the MARK IN and MARK OUT buttons.

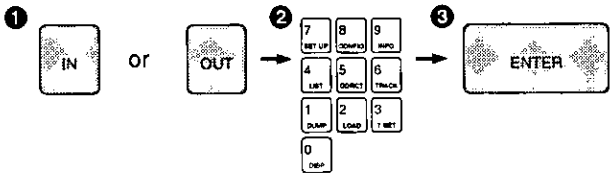


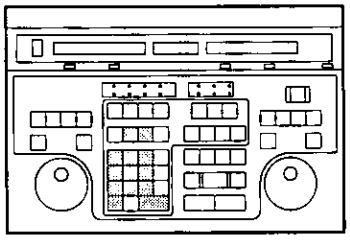


❶ The selected VTR is placed in the temporary stop mode.
❷ Use the search dial to find the edit points using a shuttle or jog search. Push the dial in or out to select shuttle or jog.
❸ When the MARK IN or MARK OUT button is pressed after the VTR is temporarily stopped at the edit point, the edit IN or OUT point will be set.

*The VTR need not necessarily be set to the temporary stop mode for the MARK IN or MARK OUT button to be pressed. An easier and more convenient setting method is to press these buttons at the appropriate positions on the tape while monitoring the tape being played back using TAPE.

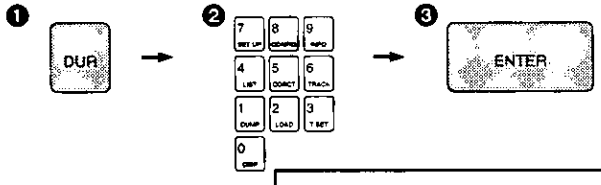
B. Input directly the time code of the edit points using the 10 number keys.

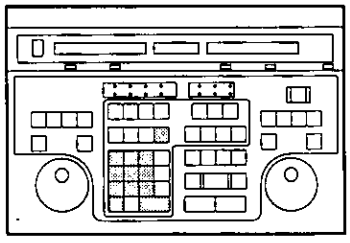




❶ Press the IN or OUT button.
❷ Press the 8, 3, 2, 0 and 9 number keys (=8 minutes 32 seconds 09 frames), for instance, for the PLAYER1 IN point.
❸ Press the ENTER button each time an edit point is input.

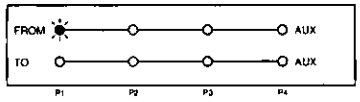
C. Set the point by assigning the length of the edit duration.

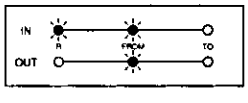




❶ Press the DUR button.
❷ Input 2609 (26 sec. 09 frames), for instance, for the PLAYER1 edit duration.
❸ Press the ENTER button.

The edit point entry is completed once the P1 IN and OUT points and the recorder IN point have been entered.
The recorder OUT point is automatically calculated when editing is executed.
(The settings can be checked on the edit data setting display unit.)





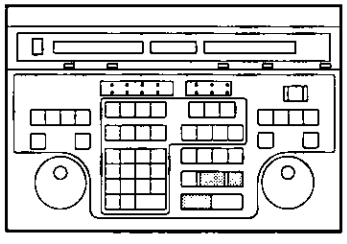
4. Set the special effects, etc.

This is not necessary in the limited operation mode.

With cut editing, perform the initial speed, GPI and audio split (for insert editing) settings. For further details, refer to the Editing Options section.

5. Proceed with the editing.

Once steps 1 through 4 are performed, the edit point settings required for the example given have been completed. If editing is now performed, one event will be automatically edited. If the "preview" function is used prior to editing, it is possible to see whether the settings have been performed as intended. After editing has been performed, the edited result can be checked using the "review" function.

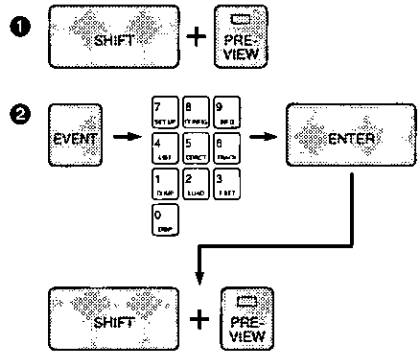


(Preview) Rehearsal playback before proceeding with editing

❶

❶ When the PREVIEW button is pressed, the event just entered (event whose number appears on the display) will be previewed.

(Review) After editing, what has been edited can be played back and checked.

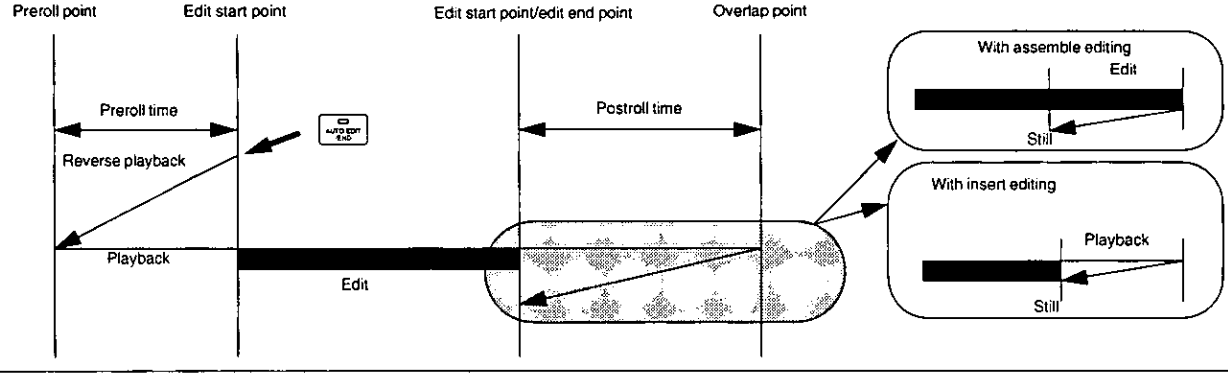


❶ When the REVIEW button is pressed even with a new event, the previous, already edited event is played back.
❷ Already recorded events can be called at any point on the tape and reviewed.

(Editing execution) With continuous automatic editing, input the next event without executing editing.

When the AUTO EDIT/END button is pressed, the automatic editing of one event is commenced.

*After editing has been executed, the EVENT No. is added, and what has been the recorder's edit OUT point is automatically calculated as the edit IN point.
*To conclude editing at any time, press the AUTO EDIT/END button.

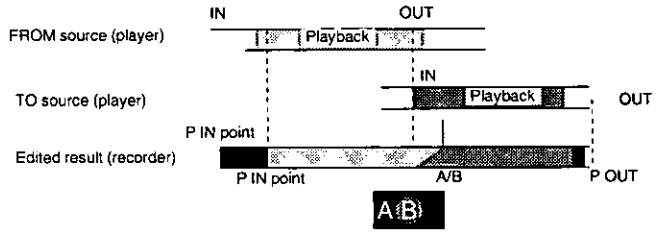


Operating Procedure for A/B Roll Editing

The following set of conditions is used as an example to describe A/B roll editing using two players simultaneously.

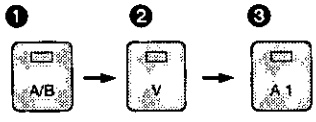
Mode:	A/B roll editing insert editing (video, audio CH1)		
A roll	PLAYER1	IN	00:09:32:18
		OUT	00:09:58:24
B roll	PLAYER2	IN	00:01:08:21
		OUT	00:01:12:02
Recorder		IN	00:00:00:00
		OUT	00:00:29:17 (calculated automatically)

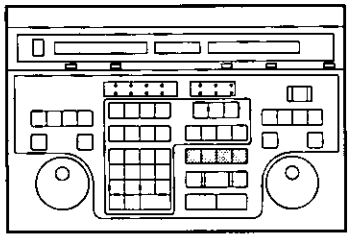
Special video effects: Circle wipe (normal)
(When using the WJ-MX50 with a transition time of 2 sec.)



1. Select the editing modes.

Select the A/B roll editing and insert editing modes.



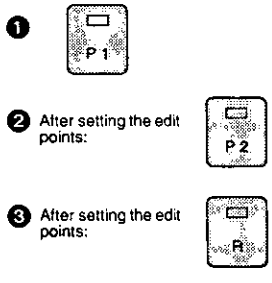


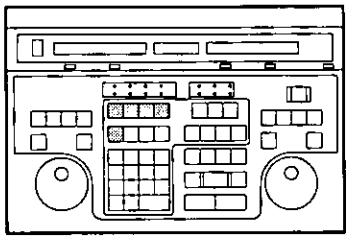
❶ Press the A/B button for A/B roll editing. For sync roll editing, press the A/B button while holding down the SHIFT button.

❷ ❸ For insert editing, only those video and audio signals required can be selected and edited on the pre-recorded tape.

2. Select the VTRs (external devices).

Select the VTRs which are to be operated.





The VTRs, whether P1-P4, AUX1-AUX4 or R corresponding to the lighted lamps of the selected buttons can be operated by the AG-A850.

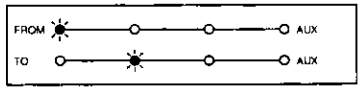
❶ The player, which is selected first and whose edit points have been set, serves as the FROM source. To select the TO source first, press the TO button and then select the VTR.

❷ The players, which is selected second and whose edit points have been set, serves as the TO source.

❸ Select the recorder VTR.

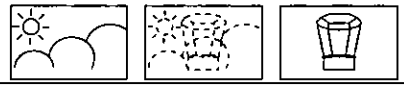
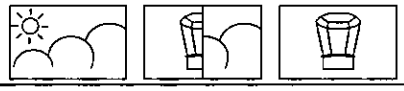
3. Set the edit points.

The same three ways of entering the edit points used with cut editing can be used. Enter 5 points in all: the IN and OUT points of P1, the IN and OUT points of P2, and the recorder IN point. The recorder OUT point is automatically calculated when editing is executed. Entry is complete if the edit entry lamps light as shown below.



4. Set the special effects, etc.

Set the desired effect.

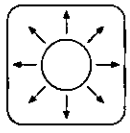
Effect name	Effect Description	
Dissolve (MIX)	The first picture gradually fades out as the next picture fades in.	
Wipe	The first picture is wiped clear while simultaneously being replaced by the next picture.	

❶ PATTRN → 1 DUMP → 3 T SET → ENTER

❷ TRANS → 2 LOAD → 0 DISP → 0 DISP → ENTER

❶ Set the video switcher effects. Input "0" for dissolve or the pattern number for wipe.
"13" is set for the wipe pattern here.

❷ Set the transition time (length of the effect from start to finish).
In this case, a time of 2 sec. 0 frame is set.
This time can be set from 0 up to 59 sec. 29 frames (or up to 59 sec. 24 frames with a PAL system model).

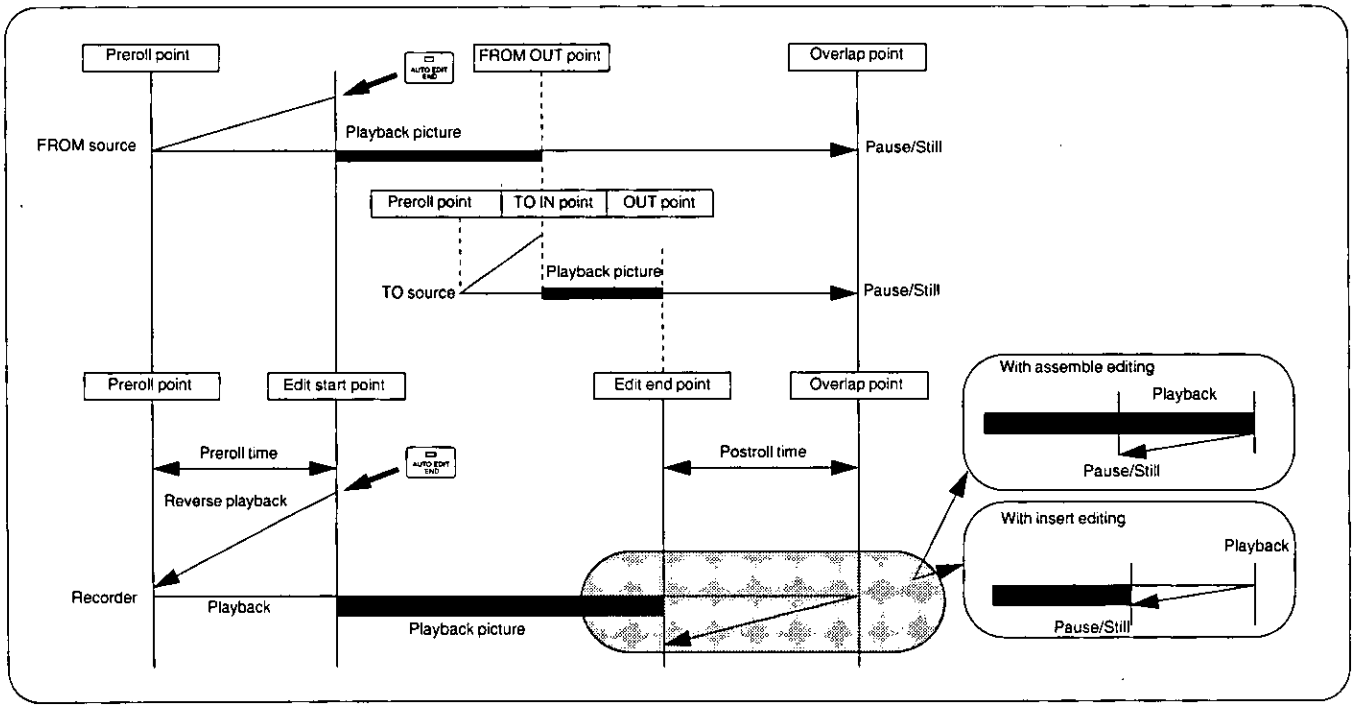


Circle wipe at A/B point
(normal direction)
Transition time of 2 sec.
(60 frames)

Besides setting the effect at the EFFECT point, perform the initial speed, GPI and audio split (for insert editing) settings. For further details, refer to the Editing Options section.

5. Proceed with the editing.

After the edit points and special effect have been set, try the preview function. The procedure is the same as for cut editing. If the settings are satisfactory, proceed with the auto editing.



Multi-Recorder Editing

In addition to cut editing and A/B roll editing, the AG-A850 has the following editing capabilities.

❶ Multi-recorder editing ..... to prepare up to 3 master tapes simultaneously.
❷ Multi-event editing ..... to continuously edit the edit data in the EDL memory.
❸ Open-ended editing ..... to omit the edit OUT point setting.
❹ Park and edit ..... to omit the edit IN point setting.
❺ Sync roll editing ..... to select the switcher's functions manually.
❻ Slow-motion editing ..... to edit images played back in slow motion.
❼ Single-action slow-motion editing ..... to change the playback speed during editing.
❽ Auxiliary source (AUX) editing ..... to edit using the signals from an auxiliary source (AUX).
❾ Audio split editing ..... to edit after the pictures and sound are shifted.
❿ GPI setting ..... to edit by controlling an external device.
⓫ First edit ..... to prepare an editing tape.
⓬ TC insert editing ..... to record only the time code.

Multi-recorder editing

The AG-A850 comes with a multi-recorder editing capability which enables up to 3 master tapes to be prepared simultaneously by a single editing operation. An example of multi-recorder editing is described below using P3 and P4 as the slave VTRs.

[System connections]

Refer to the multi-recorder A/B roll editing system using 2 players and 3 recorders in the section on the system connections.

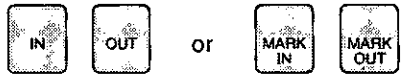
[System settings]

For the set-up relating to the ports, perform the port status settings shown in the figure on the right. For details on operation, refer to "Troubleshooting" (page 82).

```
PORT STATUS

1 PORT-A..............R*
2 PORT-B..............P1*
3 PORT-C..............P2*
4 PORT-D......P3(SLAVE)
5 PORT-E......P4(SLAVE)
6 PORT-F..........SW'ER*
7 PORT-G..........MIXER*
```

[Setting procedure]



❶ Set the edit data following the same procedure as with normal cut editing or A/B roll editing. The edit points of slave VTRs (P3, P4) need not be set.

[Performing editing]

❶ Press the AUTO EDIT/END button. Multi-recorder editing is now commenced. [Recording is conducted on the recorder VTR and slave VTRs (P3, P4).]
❷ If the edit OUT point has not been set, press the AUTO EDIT/END button again to conclude the editing operation.

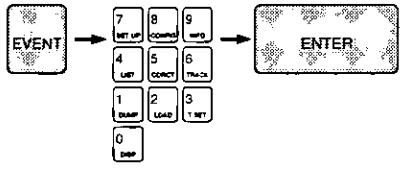
[Notes]

- It is recommended that the time code (TC) be used for the recorder and slave VTRs.
  If CTL is used instead, it may not be possible to conduct editing properly. For instance, a master tape whose edit points will have discrepancies between the recorder and slave VTRs may be prepared.
- The time code values and frame modes of the recorder and slave VTRs must match.
- The cue audio track selection (see "CUE CONTROL in the tables of system settings") with multi-recorder editing is the same for the slave VTRs as for the recorder VTR.
- If different models are used for the recorder and slave VTRs, it may not be possible to conduct editing properly. For further details, refer to "Troubleshooting" (page 84).

Multi-event editing

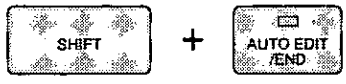
The data of a number of events can be entered and edited altogether instead of editing each event immediately after its edit data has been set.

[Calling the edit data]



❶ Call the event whose editing is to be started. There are two principal ways of calling the event as described below.
Press the EVENT button, then input the event number, and press the ENTER button.
Repeatedly press the FS (SHIFT+ "+") or BS (SHIFT + "−") button to search the target event. For details, refer to the section on "Entering and calling edit data".

[Performing editing]



❶ Press the PROGRAM EDIT (SHIFT+AUTO EDIT/END) button. Editing is conducted automatically from the event indicated on the display to the last event on the EDL list in the event entry sequence.

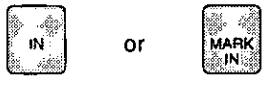
[Notes]

- New events cannot be edited with multi-event editing.
- With multi-event editing, use the time code (TC) for all the VTRs (and especially for the recorder). If CTL is used instead, there may be major discrepancies between the edit points of the completed tape and the settings.

Open-ended editing

Open-ended editing refers to an editing process in which the edit OUT point setting is omitted.

[Setting procedure]



❶ Set the edit data following the same procedure as with normal cut editing or A/B roll editing except that the edit OUT point is not set.
❷ Set the edit OUT point of the FROM source only for A/B roll editing.

[Performing editing]

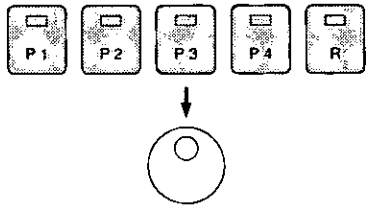
❶ Press the AUTO EDIT/END button. Open-ended editing is now commenced.
❷ Once the required scenes have been recorded, press the AUTO EDIT/END button again to conclude the operation.

Park and Edit/Sync Roll Editing

Park and edit

Omitting the edit IN point setting and performing editing is known as "park and edit." The present tape position is set as the edit IN point for VTRs whose edit IN point has not been set.

[Setting procedure]



❶ Select the VTR to be used using the P1, P2, P3 or P4 button.
❷ Use the search dial to search the edit IN point.

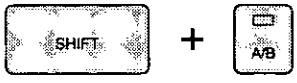
[Performing editing]

❶ Press the AUTO EDIT/END button. The present tape position is set as the edit IN point, and editing is commenced.
❷ When the edit OUT point has not been set, press the AUTO EDIT/END button to conclude the editing.

Sync roll editing

The FROM source and TO source are started simultaneously, and the switcher is used to switch the source manually by viewing the pictures.

[Setting procedure]



❶ Press the SYNC (SHIFT+ A/B) button. Its lamp now flashes.
❷ The subsequent settings are the same as for A/B roll editing. Select the source and set the editing mode and edit points. The recorder VTR, FROM source and TO source durations are made the same.

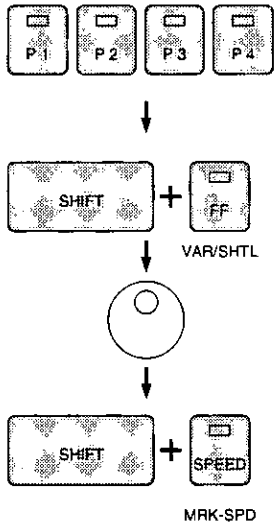
[Performing editing]

❶ Press the AUTO EDIT/END button. Sync roll editing is commenced.
❷ Operate the video switcher at the desired point, and select the picture.
❸ When the edit OUT point has not been set, press the AUTO EDIT/END button to conclude the editing.

Slow-motion editing

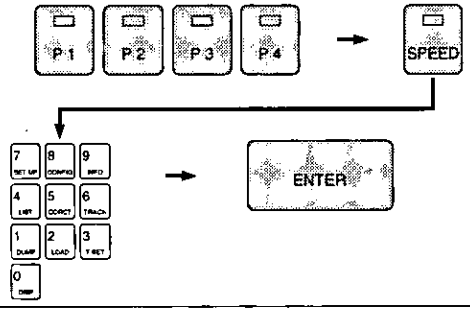
[Setting procedure]

1) How to set slow-motion editing by playing back the VTR tape in slow motion (MRK-SPD)



❶ Select the slow-motion playback VTR using the P1, P2, P3 or P4 button.
❷ Press the VAR/SHTL (SHIFT+FF) button to set the search dial to the VAR mode.
❸ Play back the VTR tape at the desired speed using the search dial.
❹ Press the MRK-SPD (SHIFT+SPEED) button.

2) How to set slow-motion editing by inputting the initial speed using the number keys



❶ Press the P1, P2, P3 or P4 button to select the slow-motion playback VTR.
❷ Press the SPEED button. While the button is pressed, the speed setting is displayed.
❸ With the normal tape play speed as "100," input the initial speed using the 0 to 9 number buttons and "–" button. To play back the tape in the reverse direction, press the "–" button, and before the number.
❹ Press the ENTER button.

[Performing editing]

❶ Press the AUTO EDIT/END button. Slow-motion editing now commences.
❷ The search dial can be operated during editing to vary the playback speed. Set the search dial to the VAR mode before commencing editing.
❸ When the edit OUT point has not been set, press the AUTO EDIT/END button to conclude the editing.

[References]

- The initial speed can be set from −100% to 300%.
- To clear slow-motion editing, press the SPEED, C and ENTER buttons one after the other.

[Notes]

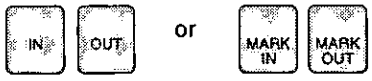
- Synchronization is not performed for a slow-motion playback VTR and so the editing accuracy is impaired as a result.
- With some VTR models, it may not be possible to play back the tape at the speed which has been set.
- Normal pictures cannot be recoded when slow-motion editing is performed using a VTR without a slow-motion playback function.

Single-action slow-motion playback and auxiliary source (AUX) editing

One-touch slow-motion playback

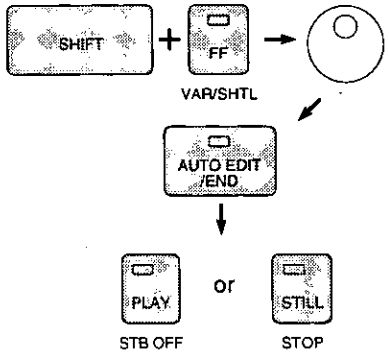
At the touch of a button, the player VTR's mode can be switched from standard speed playback to slow speed playback during editing.

[Setting procedure]



❶ Set the edit data following the same steps as for regular cut editing or A/B roll editing.
There is no need to set the default speed using the [SPEED] button.

[Editing procedure]

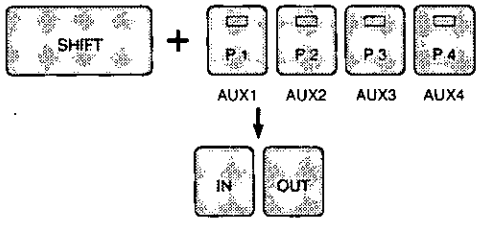


❶ Before commencing editing, set the player VTR's search dial to the VAR mode.
❷ Use the search dial to play back the VTR's tape at the desired speed.
❸ Press the [AUTO EDIT/END] button.
Editing now commences in the standard speed playback mode.
❹ Press the player's PLAY button during editing to switch to the speed which was set using the search dial. Press this button again to restore the standard speed playback (VAR) mode. The VTR is set to the still mode when the [STILL] button is pressed.

Auxiliary source (AUX) editing

Sources other than VTRs can be edited by using auxiliary sources (AUX). Normally, the edit points are set using the time code (TC) or CTL signal for editing operations involving VTRs. However, when the video signals from a camera or signal generator or audio signals from a CD player or DAT deck are edited, the fact that the time code (TC) or CTL signal is not available makes it impossible for the edit points to be determined in the same way as for VTRs. In such cases, the auxiliary source (AUX) is selected and the edit points are determined in the following way.

[Setting procedure]



❶ Select the auxiliary source using the AUX1, AUX2, AUX3 or AUX4 (SHIFT+P1, P2, P3 or P4) button.
❷ Set the edit data by following the same procedure as for normal cut editing or A/B roll editing except that the number keys are used to input the edit points. The search dial and MARK IN/OUT cannot be used for the settings.
Example: To set editing for 5 seconds
Input [IN] [0] [ENTER] to enter the edit IN point.
Input [OUT] [5] [0] [0] [ENTER] to enter the edit OUT point.

[Editing procedure]

❶ Press the AUTO EDIT/END button. Editing using the auxiliary source now commences.
❷ Operate the auxiliary source manually in accordance with the editing. If GPI is to be used for automatic control, this step need not be taken.
❸ If the edit OUT point has not been set, press the AUTO EDIT/END button to complete the editing.

[References]

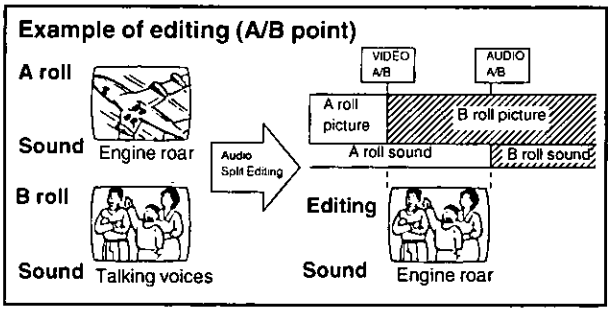
- When a video switcher or audio mixer is to be used, the cross points must be set in line with each of the input channels. Refer to the SW'ER CROSS POINT and MIXER CROSS POINT items in the tables of system settings.
- Start timing control is not possible for the auxiliary source. Exercise control manually or use the GPI.

[Note]

- Even when the auxiliary source has a GPI connector, do not use it if its specifications do not match those of the AG-A850. Not only will the source fail to operate but it may also malfunction if this warning is not heeded. Consult the manufacturer of the auxiliary source as to whether connection is possible. For details on the specifications of the AG-A850, refer to "Specifications."

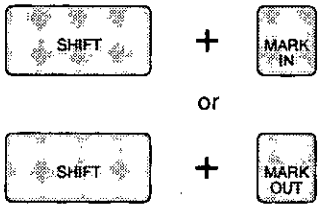
Audio split editing

This editing technique can be used at the edit IN, A/B and OUT points of insert editing. It has the effect of inputting the sound of the next cut ahead of the picture or leaving only the sound in the next cut.



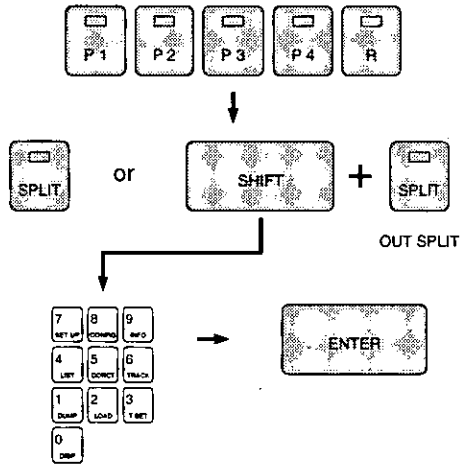
[Setting procedure]

1) How to set the function by reading the VTR's time code (MARK SPLIT)



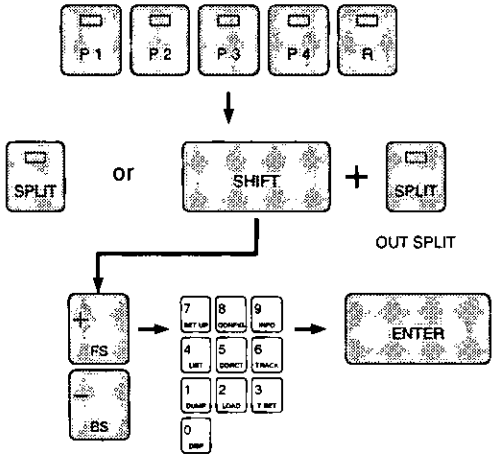
❶ After the VTR has been selected, use the search dial to search the edit point to be set.
❷ Press the MARK IN button while holding down the SHIFT button. The VTR's time code is read and set as the audio edit point.
When the MARK OUT button is pressed while holding down the SHIFT button, the OUT split point (OUT SPLIT) is set.

2) How to set the function by inputting the VTR's time code



❶ Press the P1, P2, P3, P4 or R button to select the VTR for which the time code amount is to be set.
❷ Press the SPLIT button. While the button is pressed, the set time code amount is displayed.
When the SPLIT button is pressed while holding down the SHIFT button, the OUT split point (OUT SPLIT) is displayed.
❸ Input the desired time code using the 0 to 9 number buttons.
❹ Press the ENTER button.

3) How to set the function by inputting the split amount from the edit point



❶ Press the P1, P2, P3, P4 or R button to select the VTR for which the split amount (difference between video/audio editing points) is to be set.
❷ Press the SPLIT button. While the button is pressed, the set split amount is displayed.
When the SPLIT button is pressed while holding down the SHIFT button, the OUT split point (OUT SPLIT) is displayed.
❸ To position the sound ahead of the video edit point, press the "–" button, and cause "A" to appear on the time display unit. Conversely, to position the sound after the video edit IN point, press the "+" button. "d" now appears on the time display unit.
❹ Input the desired split amount using the 0 to 9 number buttons.
❺ Press the ENTER button.

Audio Split Editing

[Performing editing]

❶ Press the AUTO EDIT/END button. Audio split editing now commences.
❷ When the edit OUT point has not been set, press the AUTO EDIT/END button to conclude the editing.

[Reference]

- Any split amount ranging from +59 sec. 29 frames to −59 sec. 29 frames (NTSC) [or +59 sec. 24 frames to −59 sec. 24 frames (PAL)] can be set.
- To clear audio split editing, press the SPLIT, C and ENTER buttons in this order.
- MARK SPLIT can be performed even during preview.

[Notes]

- Audio split editing cannot be performed during assemble editing.
- If the settings have been made using a VTR with no editing capabilities, audio split editing will not be performed.

Audio split

In addition to the split setting at the edit IN point which is normally used, a split (OUT SPLIT) point in another location can also be set. The splits points which have been set and the operations conducted during editing are shown in the figures below.

Standard split settings		Type of editing performed		
SPLIT	OUT SPLIT	CUT	A/B ROLL	SYNC ROLL
R-VTR	R-VTR	Fig. 7	Fig. 1	Fig. 7
R-VTR	A-VTR	Fig. 7	Fig. 2	Fig. 7
R-VTR	B-VTR		Fig. 1	Fig. 7
R-VTR	D	Fig. 7	Fig. 1	Fig. 7
R-VTR	---	Fig. 8	Fig. 4	Fig. 8
A-VTR	R-VTR	Fig. 7	Fig. 1	Fig. 7
A-VTR	A-VTR	Fig. 7	Fig. 2	Fig. 7
A-VTR	B-VTR		Fig. 1	Fig. 7
A-VTR	D	Fig. 7	Fig. 1	Fig. 7
A-VTR	---	Fig. 8	Fig. 4	Fig. 8
B-VTR	R-VTR		Fig. 3	Fig. 7
B-VTR	A-VTR			Fig. 7
B-VTR	B-VTR		Fig. 3	Fig. 7
B-VTR	D		Fig. 3	Fig. 7
B-VTR	---		Fig. 5	Fig. 8
D	R-VTR	Fig. 7	Fig. 1	Fig. 7
D	A-VTR	Fig. 7	Fig. 2	Fig. 7
D	B-VTR		Fig. 1	Fig. 7
D	D	Fig. 7	Fig. 1	Fig. 7
D	---	Fig. 8	Fig. 4	Fig. 8
---	R-VTR	Fig. 9	Fig. 6	Fig. 9
---	A-VTR	Fig. 9	Fig. 5	Fig. 9
---	B-VTR		Fig. 6	Fig. 9
---	D	Fig. 3	Fig. 6	Fig. 9

R-VTR: Set by the time code of the recorder VTR.
A-VTR: Set by the time code of the A roll VTR.
B-VTR: Set by the time code of the B roll VTR.
D: Set by the split amount from the edit point.
---: No setting

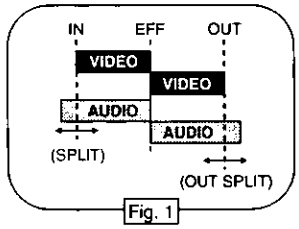


Fig. 1

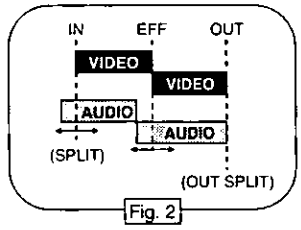


Fig. 2

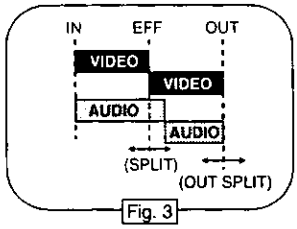


Fig. 3

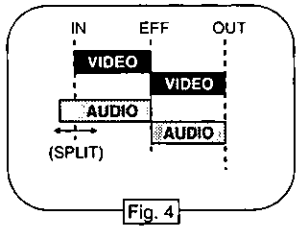


Fig. 4

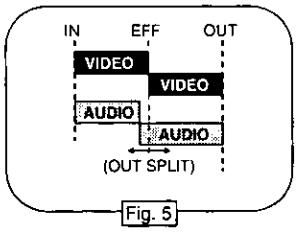


Fig. 5

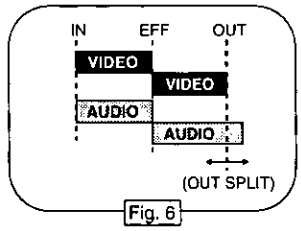


Fig. 6

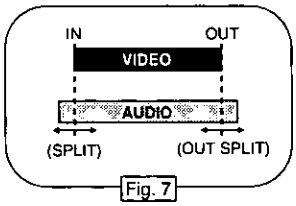


Fig. 7

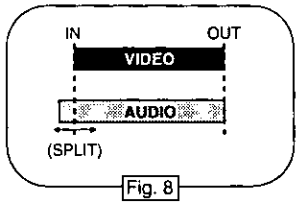


Fig. 8

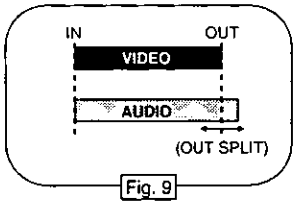


Fig. 9

GPI settings

An external device equipped with a trigger input connector can be controlled using the GPI connectors. The AG-A850 comes with two GPI output connectors, GPI1 and GPI2. The output timing can be changed for each event at GPI1 which can also provide two GPI outputs during one-time editing.

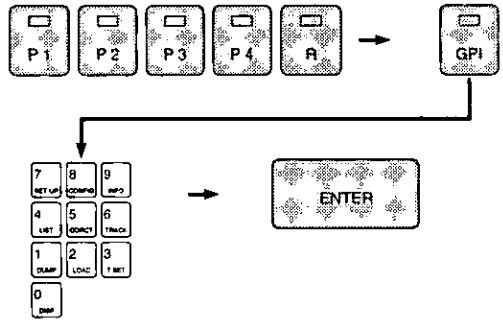
[Setting procedure]

1) How to set the function by reading the VTR's time code (MRK-GPI)

MRK-GPI

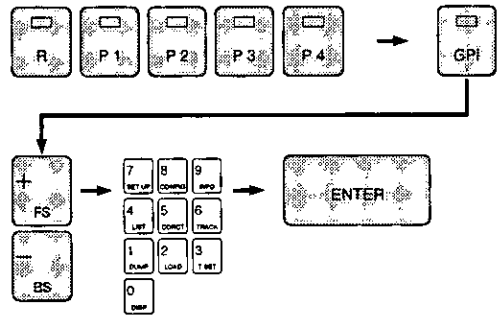
❶ After the VTR has been selected, use the search dial, etc. to search the edit point to be set.
❷ Press the GPI button while holding down the SHIFT button. The VTR time code is read, and the GPI output time is set.

2) How to set the function by inputting the VTR's time code



❶ Press the P1, P2, P3, P4 or R button to select the VTR for which the split amount is to be set.
❷ Press the GPI button. While the button is pressed, the set GPI level is displayed.
❸ Input the desired time code using the 0 to 9 number buttons.
❹ Press the ENTER button.

3) How to set the function by inputting a relative time from an edit point



❶ Press the P1, P2, P3, P4 or R button to select the VTR for which the relative time amount is to be set.
❷ Press the GPI button. While the button is pressed, the set GPI level is displayed.
❸ To output GPI ahead of the edit point, press the "–" button. Conversely, to output GPI after the edit point, press the "+" button. The edit point which will serve as the reference is determined by the selected VTR and number of times the "+" or "–" button was pressed.
❹ Input the relative time form the edit point using the 0 to 9 number buttons.
❺ Press the ENTER button.

[Performing editing]

❶ Press the AUTO EDIT/END button. Editing now commences. GPI is output at the set timing.
❷ When the edit OUT point has not been set, press the AUTO EDIT/END button to conclude the editing.

GPI Settings

[Reference] GPI reference points and displays
When the GPI output time has been input as a relative value from an edit point, the reference point is determined by the selected VTR and number of times the "+" or "−" button was pressed.

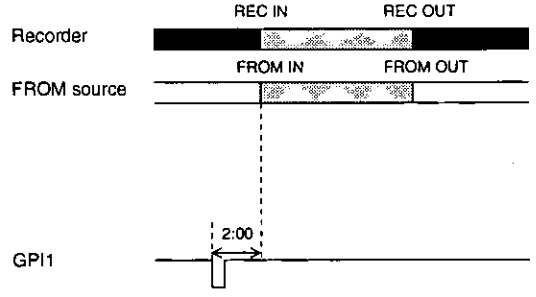
Selected VTR	When the "+" button was pressed once	When the "+" button was pressed twice	When the "+" button was pressed 3 times
Recorder	Set as time relative to REC IN; time display unit reads [ri d XX:XX].	Set time relative to REC OUT; time display unit reads [ro d XX:XX].	Set as time code; time display unit reads [X:X:X:X].
FROM source	Set as time relative to FROM IN; time display unit reads [fi d XX:XX].	Set as time relative to FROM OUT; time display unit reads [fo d XX:XX].	Set as time code; time display unit reads [X:X:X:X].
TO source	Set as time relative to TO IN; time display unit reads [ti d XX:XX].	Set as time relative to TO OUT; time display unit reads [to d XX:XX].	Set as time code; time display unit reads [X:X:X:X].

"A" appears instead of "d" on the displays as in "ri A XX:XX" when the "−" button has been pressed.

[Reference]
- When the GPI is set in 3 places for the same event, the first setting is canceled.
- Any relative time ranging from +59 sec. 29 frames to −59 sec. 29 frames (NTSC) [or +59 sec. 24 frames to −59 sec. 24 frames (PAL)] can be set.
- To clear the GPI settings, press the GPI, C and ENTER buttons one after the other. When GPI has been set in two places, the second set of data is cleared first.
- For the GPI settings common with all events, refer to Appendix A (Table of System Settings/GPI CONTROL).
- MARK GPI can be performed even during preview.
  When "SW'ER DSK MODE" for switcher-related set-up is set to GPI1, DSK can be turned ON or OFF in accordance with what has been set for GPI here (when the WJ-MX50, GVG-100 or VPS-300 is used).

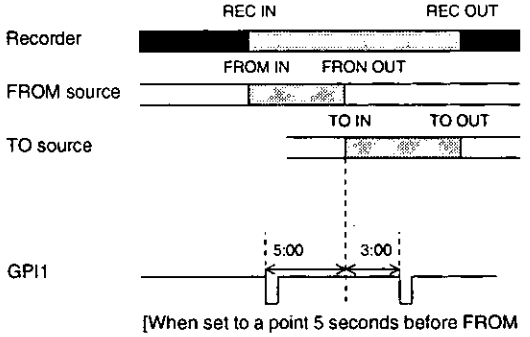
Signals output from GPI connector

Cut editing



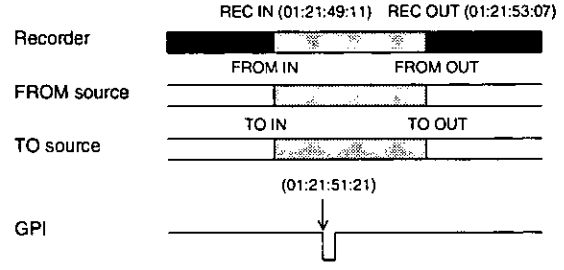
[When set to a point 2 seconds before REC IN (R in A2:00)]

A/B roll editing



[When set to a point 5 seconds before FROM OUT (F out A5:00) and 3 seconds after TO IN (T in d3:00)]

Sync roll editing



[When set by the 01:21:51:21 time code of the recorder]

[Reference]
The actual GPI output signals can be adjusted using the GPI-related expanded set-up settings.
With the default settings of the AG-A850, the GPI signals are output 1 frame faster than the output timing shown in these figures.

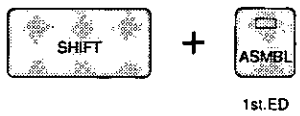
[Notes]
- If the VTR has no editing capabilities, GPI is not output even when the settings have been established.
- Do not set GPI outside the editing area (outside the area between preroll and postroll). Otherwise, GPI may not be output correctly.

First Edit/TC Insert Editing

First edit

When assemble editing is to be performed, the correct video signals must be recorded before the recorder's edit IN point. First edit is a function which does this automatically.

[Setting procedure]



❶ Operate the recorder VTR and locate the recording position.
❷ While holding down the SHIFT button, press the ASMBL button so that its lamp starts flashing.

[Performing editing]

❶ Press the AUTO EDIT/END button. Recording commences from the recorder VTR's present tape position, and is concluded after about 25 seconds. The assemble editing mode is established upon conclusion of this editing.
❷ When the settings are completed for the player VTR's edit points, the editing of this event is automatically started after the first edit.

[Reference] Formatting
The tape must be formatted for insert editing. Use the T SET (SHIFT+3) button to set the default value for the time code to be recorded, and record manually (REC+PLAY).

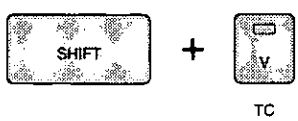
[References]
- To clear the first edit mode, while holding down the SHIFT button, press the ASMBL button as before to stop its lamp flashing.
- The time code to be recorded uses as a reference the recorder VTR's edit IN point which was set before the first edit mode was entered. If not explicitly set, "00:00:00:00" is set as the recorder VTR's edit IN point, and the first edit is conducted using this time as a reference.
- The time code which is actually recorded extends for approximate 25 seconds starting from the time obtained by subtracting approximate 23 seconds from the reference time code.
- When first edit was performed with the event in which the TC insert editing was entered, the edit mode will not be changed nor will the event be edited upon completion of first edit.

[Notes]
- When using the first edit function or formatting the tape, supply the black burst or other such signal to the recorder's video input connector.
- Depending on the VTR used, the color frame phases of the video signal and time code may not be aligned properly. For further details, refer to "Troubleshooting" (page 84).

TC insert editing

With this editing option, only the time code (LTC) is recorded on the tape in the recorder VTR. The option is used when the time code has not been recorded on the tape used in the player VTR or when editing cannot be performed due to time code discontinuity (TC JUMP) at some point along the tape.

[Setting procedure]



❶ Use the T SET (SHIFT+3) button to set the default value of the time code to be recorded. (For further details, refer to the section on setting the VTR's time.)
❷ Press the TC (SHIFT+V) button to light the TC lamp.

[Performing editing]

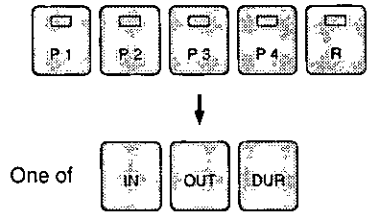
❶ Press the AUTO EDIT/END button. TC insert editing now commences. The CTL is displayed on the time counter first when editing is commenced: this is normal and not indicative of malfunctioning.

[Reference]
In a VHS (S-VHS) format VTR, audio channel 2 is selected to be used as an audio track or time code (LTC) track. Set the VTR in such a way that it will be used as the time code track when TC insert editing is performed.

[Notes]
- Only the recorder VTR is used. Keep in mind that the slave VTRs are not equipped with a recording facility.
- It is not possible to set the initial value of the time code to be recorded with some VTRs. In a case like this, record the time code by operating the VTR itself.

Edit Point Checking (IN, OUT, DUR, LAP, GO TO)

Checking the edit point settings (IN, OUT, DUR)



❶ Select the VTR using the P1, P2, P3 or P4 button.
❷ Press the IN, OUT or DUR button.
❸ While the button is held down, the source's edit point appears on the player time display unit and the recorder's edit point appears on the recorder time display unit.
While the button is pressed, the time (LAP time) from the source's edit IN point appears on the player time display and the recorder's LAP time appears on the recorder time display.

[Reference]
The edit point status is indicated on the right of the displayed time code.
No display: An edit point which has been set
"." lighted: An edit point automatically calculated from another edit point
"." flashing: An edit point controlled by the time track

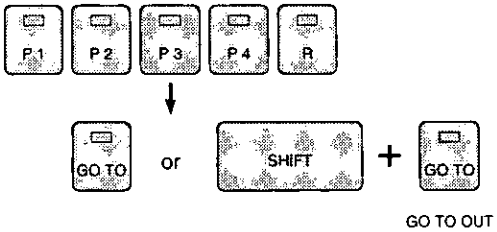
Checking the time from the edit IN point (LAP)

❶ Select the VTR using the [P1], [P2], [P3] or [P4] button.
❷ Press the [LAP (ENTER+DUR)] button.
While the button is pressed, the time (LAP time) from the source's edit IN point appears on the player time display and the recorder's LAP time appears on the recorder time display.

[Reference]
Press the [DUR] button to check the LAP time during editing.

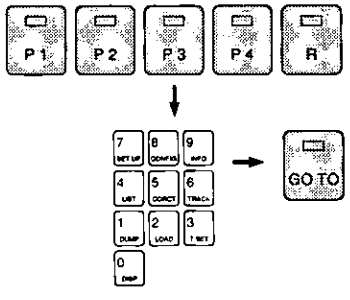
Checking the picture at the edit point (GO TO)

1) GO TO edit point



❶ Select the VTR using the P1, P2, P3 P4 or R button.
❷ To check the picture at the edit IN point, press the GO TO button. The GO TO button lamp lights, the edit IN point is searched automatically, and the tape stops. To check the picture at the edit OUT point, press the GO TO OUT (SHIFT+GO TO) button.

2) GO TO any time code



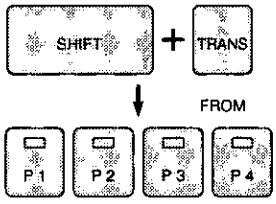
❶ Select the VTR using the P1, P2, P3 P4 or R button.
❷ Input the desired time code using the 0 to 9 number keys.
❸ Press the GO TO button. The GO TO button lamp lights, the input time code is automatically searched, and the tape stops.

[Reference]
In the limited operation mode, the edit point of the VTR which was operated last with the PLAY or other function button is searched.

Revising and Clearing Edit Data

The following methods can be used to revise or clear edit points when they have been incorrectly set.

1) Changing the FROM source

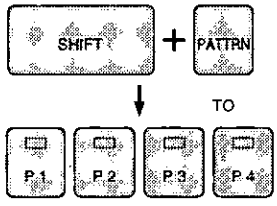


These steps are for changing the cut edit source or A/B roll edit FROM source.

❶ Press the FROM (SHIFT+TRANS) button.

❷ Select the source VTR using the P1, P2, P3 or P4 button. AUX1, AUX2 AUX3 or AUX4 can be selected instead.

2) Changing the TO source

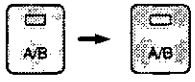


These steps are for changing the A/B roll edit TO source.

❶ Press the TO (SHIFT+PATTRN) button.

❷ Select the source VTR using the P1, P2, P3 or P4 button. AUX1, AUX2 AUX3 or AUX4 can be selected instead.

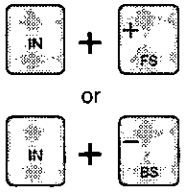
3) Changing over the FROM source and TO source



These steps are for changing over the FROM source and TO source for A/B roll editing.

❶ Press the A/B button twice.

4) Adjusting an edit (IN) point in 1-frame increments (Trimming)

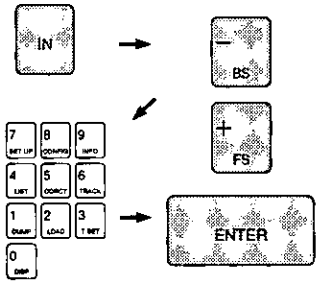


❶ To increase the edit (IN) point by 1 frame, press the "+" button while holding down the IN button. Conversely, to decrease the edit (IN) point by 1 frame, press the "−" button while holding down the IN button.

[Reference]

As with the edit IN point, to increase or decrease an edit OUT point, press the "+" or "−" button while holding down the OUT button, and to increase or decrease the duration, press the "+" or "−" button while holding down the DUR button.

5) Revising an edit (IN) point



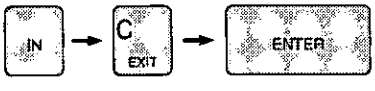
❶ Press the IN button. To revise an edit OUT point, press the OUT button instead of the IN button; to revise a duration, press the DUR button.

❷ Press the "+" button the shift the edit point backward; press the "−" button to shift the edit point forward.

❸ Input the amount by which the edit point is to be increased or decreased using the 0 to 9 number keys.

❹ Press the ENTER button.

6) Clearing an edit (IN) point



❶ Press the IN button.
To clear an edit OUT point, press the OUT button instead of the IN button; to clear a duration, press the DUR button.

❷ Press the C button.

❸ Press the ENTER button.

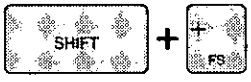
Entering and calling edit data (FS, BS, EVENT)

The AG-A850 contains an edit decision list (EDL) memory capable of storing 512 events. If it is used in the standard operation mode, edit data can be entered in the EDL memory, event data once entered can be called and revised as necessary, and events can be edited either one by one or in groups. The data entered in the EDL memory is backed up for about 3 days. After this period, however, it will be erased. Consequently required data should be transferred (dumped) to an external device and saved on a floppy disk, for example.

1) Performing the editing and entering the edit data

When edit data is prepared and edited for a new event, it is automatically entered in the EDL memory upon completion of editing, and the event numbers are simultaneously moved up by 1 to update the edit data. The "R" mark appears on the status screen to the right of the event number corresponding to the even which has been edited.

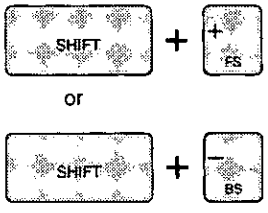
2) Entering edit data without performing editing



❶ When the edit data is prepared for a new event and the FS (SHIFT+"+") button is pressed, the edit data is entered in the EDL memory, and the event numbers are simultaneously moved up by 1 to update the edit data.
❷ When the FS button is pressed after the edit data has been changed except for a new event, the ENTER button is pressed again to confirm the change. If the edit data is not to be changed, press the "+" button once to change the display from YES to NO, and then press the ENTER button.
❸ When the edit OUT point of the recorder VTR has been changed, check whether rippling is to be performed. For further details, refer to the correct (CORCT) function.

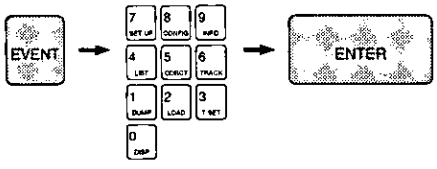
[Reference]
If the "EDL OVERFLOW" error has occurred, no more data can be entered.
Either set OVERFLOWED EDIT on SET UP to ON or erase the data to free up some of the EDL memory, and try entering the data again.

3) Calling edit data before or after a displayed event



- To call the edit data of the subsequent event, press the FS (SHIFT+"+") button.
- To call the edit data of the previous event, press the BS (SHIFT+"–") button.

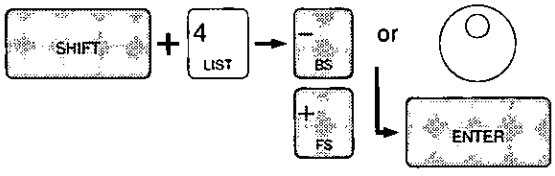
4) Assigning an event number and calling the edit data



❶ Press the EVENT button.
❷ Input the desired event number using the 0 to 9 number keys.
❸ Press the ENTER button.

[Reference]
Erased (deleted) events can be restored by following these steps.

5) Searching edit data and calling it to the screen



❶ Press the LIST (SHIFT+4) button. The displayed event and the data before and after it appear on the monitor screen.
❷ Use the "+" or "–" button to scroll backward or forward through the edit data on the monitor screen, and find the desired edit data. The edit data can also be searched (in the jog mode only) using the dial on the recorder's control section.
❸ Press the ENTER button.

[Note]
These steps are taken using the status display TV monitor.
For further details, refer to the section on listing the edit data.

[Note] New events and EDL memory
"New events" are ones in which new editing points and other data have been input, and they are managed separately by the AG-A850 from the data of other events whose settings have been completed. With new events, the edit data is still being prepared, and so all the data which has been set is managed. However, all other event data is entered in the EDL memory, the compatibility of the data is then checked, and the unnecessary data is destroyed. For instance, when the edit points of P1, P2 and R are set with P1 assigned as the source for cut editing and entered in the EDL memory, the edit points of P2 are erased.

Restoring edit points which have been revised (LAST X)

Edit points which have been revised or erased can be restored.

❶ Press the LAST-X (SHIFT+IN) button. The original edit points are now restored.
❷ When the LAST-X button is repeatedly pressed, the values before and after the data is input are displayed alternately.

Calling data which has been edited (LAST ED)

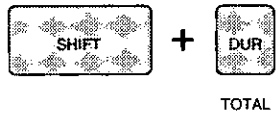
Press the LAST ED button to restore the previously previewed and edited data.

❶ Press the LAST ED (SHIFT+OUT) button. The previously previewed and edited data is now restored.
❷ When the LAST ED button is repeatedly pressed, this data and the edit data previewed and edited immediately before are displayed alternately.

[Reference] LAST ED (EVENT DATA) buffer
The data automatically entered in the LAST ED buffer consists of the most recent data entered in the EDL memory and preview data prior to any changes.
When the LAST ED button is pressed, the screen showing the data entered in the buffer is restored. This facility is convenient if preview is performed after changes are made to the data and it is determined that the data prior to the changes better suit the intended purpose.

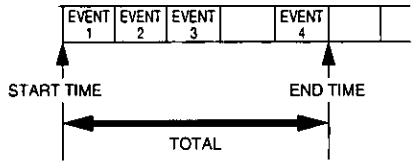
Checking the total editing time (TOTAL)

The time elapsing since the commencement of editing is displayed. The editing time can be checked when editing involves a specific length.



❶ Press the TOTAL (SHIFT+DUR) button. While the button is held down, the total editing time is displayed on the recorder's time display unit.

[Reference] Start and end times
The status of the edit point settings are what determines the time which serves as the reference for calculation. The total editing time is the time obtained by subtracting the start time from the next end time.

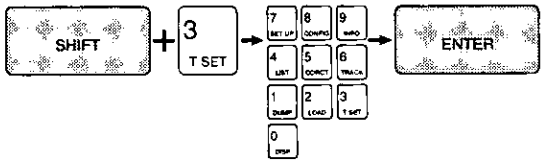


Start time: The recorder IN point of the edit data which has been set in the first event of the EDL memory normally serves as the start time. The start time can also be set using SHOW START in SET UP.
End time: The recorder OUT point of the displayed event serves as the end time. When this point has not been set, the recorder IN point serves; when the recorder IN point has not been set either, the recorder OUT point of the previous event serves.

T SET, CORCT and TRACK Functions

VTR time setting (T SET)

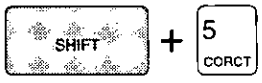
The initial time code value is set for TC insert editing or manual recording.



❶ Press the T SET (SHIFT+3) button. While the button is held down, the time code value which has been set is displayed.
❷ Input the initial value of the time code to be recorded using the 0 to 9 number keys.
❸ Press the ENTER button.

Correction function (CORCT)

This function corrects the edit data with any events (whose edit data has already been entered) except new events.

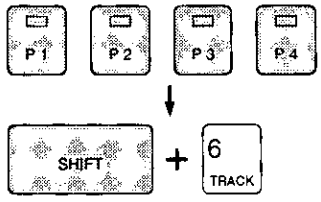


❶ Press the CORCT (SHIFT+5) button. This enters the changed edit data in the EDL memory.
❷ When the edit OUT point of the recorder VTR has been changed, check whether rippling is to be performed. To proceed with rippling, press the ENTER button. To cancel rippling, press the "+" button to change the display from YES to NO, and then press the ENTER button.
❸ When proceeding with rippling, input the event to be rippled next.
To perform rippling for all the events after the event whose edit data was changed, simply press the ENTER button. To assign specific events, use the [0] to [9] and [~] buttons to input the events.
Example: To assign events 5 to 21
Input the [5], [~], [2], [1] and ENTER buttons.

[Reference]
Edit points, etc. can be changed in an event whose edit data has already been entered. However, if the CORCT button is not pressed, the changes will not be entered in the EDL memory. In this case, the edit data prior to the changes will be restored when the event is called.

Track function (TRACK)

This function sets the player edit points very efficiently in line with the changes made to the recorder edit IN point.



❶ Use the P1, P2, P3 or P4 button to select the VTR to be involved in time tracking.
❷ Press the TRACK (SHIFT+6) button. The player IN point is set in line with the recorder IN point. The relationship between the recorder and player for the previous events is copied for the time code which is to be set.

[Reference]
When the player designated for the previous event does not exist, the same player is searched back through the events, and tracking will be conducted on the basis of the edit data of the event found.

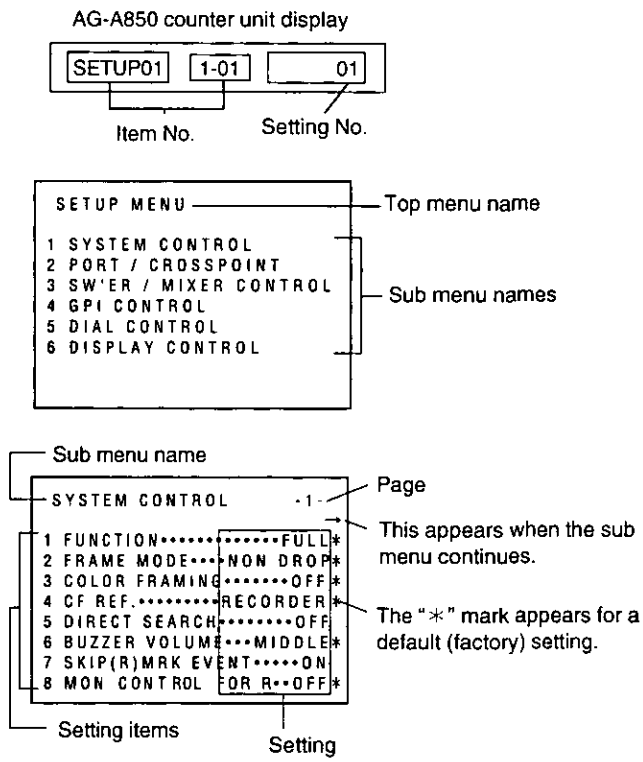
[Reference] Auto tag function
This function is automatically carried out with the editing of a new event or when the FS button is pressed with a new event to move up the event numbers. For further details, refer to the section on AUTO TAG of SYSTEM CONTROL in Appendix A (Table of System Settings).

[Reference] Automatic time tracking
Automatic time tracking applies to the edit IN points of a player which have been set using the auto tag or track function: when the recorder's edit IN point is corrected, a change is automatically made to maintain the match frame correlation. An edit IN point which has become the target of automatic time tracking is indicated as follows.

- **Monitor display unit**
  An apostrophe (') appears between the seconds and frames of the time code. (Example) 01:23:45'24
- **Counter unit**
  When the IN button is pressed, a period flashes after the time code. (Example)
  01:23:45:23.←A period flashes here.

SET UP operations

These operations mainly involve the settings concerning the system configuration and connected equipment. The data is stored in a non-volatile memory so the settings will be retained even if the power is turned off. For details of each setting item, refer to the Table of System Settings in Appendix A.



❶ Press the SET UP (SHIFT+7) button to display the top menu of the SET UP mode. When the FS (SHIFT+"+") button is now pressed, the top menu of the ENHANCED SET UP mode is displayed. "SET UP" appears on the player time display unit.

❷ Use the "+" or "−" button to select a sub menu, and press the ENTER button.

❸ When the "PORT/CROSSPOINT" or "VTR CONSTANT" sub menu has been selected in step 2, select the next menu using the "+" or "−" button, and press the ENTER button.

❹ Select the item to be set using the "+" or "−" button, and press the ENTER button. If the FS (SHIFT+"−") or BS (SHIFT+"−") button is pressed to select an item, the sub menu is changed.

❺ Set the setting item to the desired value using the "+" or "−" button, and press the ENTER button. Use the 9 to 0 number buttons, the A (SHIFT+1) through F (SHIFT+6) and C buttons for the SHOW START, USERS BITS and other settings.

❻ If the RETURN (SHIFT+ENTER) button is pressed two or three times, the setting is entered, and the SET UP mode is exited. If the EXIT (SHIFT+C) button is pressed instead, the setting is canceled, and the SET UP mode is exited.

[Reference]

Take the following steps to reset the AG-A850's settings.

1. Press the SET UP (SHIFT+7) button to display the SET UP mode top menu.
2. Press the player's RESET button. The "SET-UP INIT.SET NO " message appears on the screen.
3. Press the [+] button to display YES on the screen.
4. Press the RETURN (SHIFT+ENTER) button. The factory settings are restored for the AG-A850's settings (SET UP).

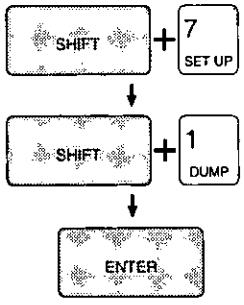
[Note]

When any of the modes is exited, the settings are saved in the internal memory. If the power is turned off during this process, the setting data may be lost.

Saving of set-up data in 2 places now enabled

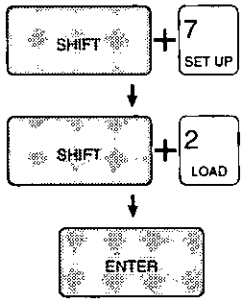
The set-up data is automatically saved in the non-volatile memory after the setting operation has been completed, and the same values are set when the power is next turned on. By saving the current settings in the backup memory as well, this data can be used to restore the original settings even after changes have been made to the set-up data.

[Data saving procedure]



❶ Press the [SET UP (SHIFT+7)] button to display the SET UP mode top menu.
❷ Press the [DUMP (SHIFT+1)] button.
The "DUMP! USER SETUP" message appears on the screen.
❸ Press the [ENTER] button.
The setting data is now saved in the backup memory. Data saving is aborted when a button other than [ENTER] is pressed.

[Data loading procedure]

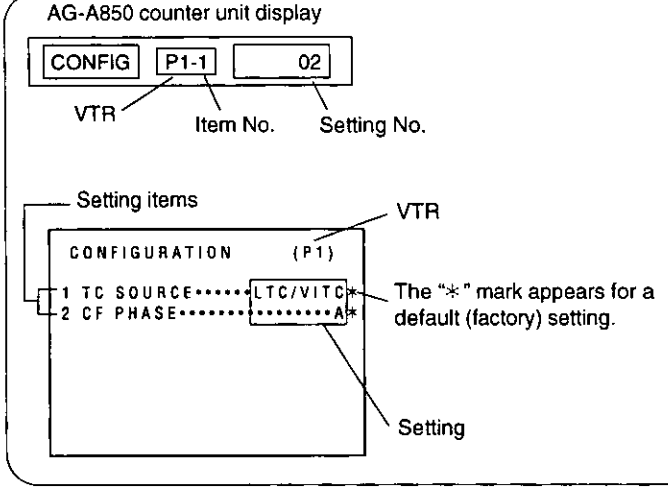


❶ Press the [SET UP (SHIFT+7)] button to display the SET UP mode top menu.
❷ Press the [LOAD (SHIFT+2)] button.
The "LOAD! USER SETUP" message appears on the screen.
❸ Press the [ENTER] button.
The backed up setting data is now loaded.
Data loading is aborted when a button other than [ENTER] is pressed.

[Note]
The data in the backup memory will be lost if the power is left off for more than 3 days. However, the regular set-up data stored in the non-volatile memory will be retained.

CONFIG operations

The settings are performed for each VTR. The data is saved in the backup memory but the default settings are restored if the AG-A850 is left for 3 or more days with the power off.

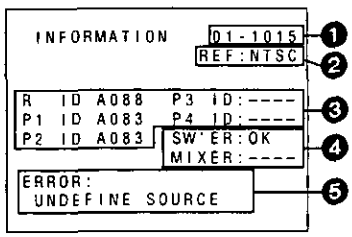


❶ Use the P1, P2, P3 P4 or R button to select the VTR.
❷ Press the CONFIG (SHIFT+8) button to display the CONFIG mode menu.
"ConFig" now appears on the player time display unit.
❸ Select the item to be set using the "+" or "−" button, and press the ENTER button.
❹ Set the setting item to the desired value using the "+" or "−" button, and press the ENTER button.
❺ If the RETURN (SHIFT+ENTER) button is pressed, the setting is entered, and the CONFIG mode is exited. If the EXIT (SHIFT+C) button is pressed instead, the setting is canceled, and the CONFIG mode is exited.

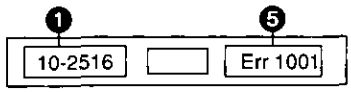
System status display (INFO)

SHIFT + 9 INFO

The system status, etc. are displayed while the INFO (SHIFT+9) button is held down.



Information screen



AG-A850 counter unit

❶ Control code

❷ REF. VIDEO status

NTSC: Indicates that an NTSC (1 sec.=30 frames) signal has been input.

PAL: Indicates that a PAL (1 sec.=25 frames) signal has been input.

---: This appears when the reference signal has not been connected or there is something wrong with it. Set SYNC GRADE to OFF, and proceed with the editing.

❸ Device type (VTR ID)

This indicates the device type (VTR ID) of the VTR (in 4-digit hexadecimal notation). When a VTR has not been connected, "---" appears.

❹ Switcher/Mixer

OK: A switcher/mixer has been connected. However, control may not be possible depending on the switcher's/mixer's settings.

----: No switcher/mixer control

❺ Error message

The code of the error which occurred last is displayed here. For the details of each error, refer to the Table of Error Signals.

[Note]

In the limited operation mode, the information screen shows a slightly different display: for instance, the P2–P4 displays do not appear.

Monitor display switching (DISP)

SHIFT + 0 DISP

By pressing the DISP (SHIFT+0) button, it is possible to select what is to be displayed on the monitor screen: the status displays, edit points or the video images whose signals are supplied to the MONITOR IN connector.

[Reference]

The status displays and SET UP menu screen can be displayed on the VTR monitor by supplying the VTR's video signals to the AG-A850's MONITOR IN connector and connecting a TV monitor to the MONITOR OUT connector.

[Note]

Use the video signals which are output from the MONITOR OUT connector as the TV monitor signals.

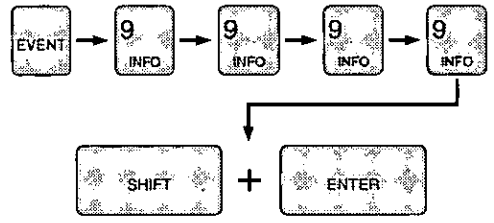
Status display switching (STATUS DISP)

ENTER + 0 DISP

If the STATUS DISP (ENTER+0) button is pressed while the status is displayed on the monitor screen, the display contents can be fixed to the edit IN point, OUT point and DUR settings. When the button is pressed again, the original display is restored.

Clearing edit data in the EDL memory

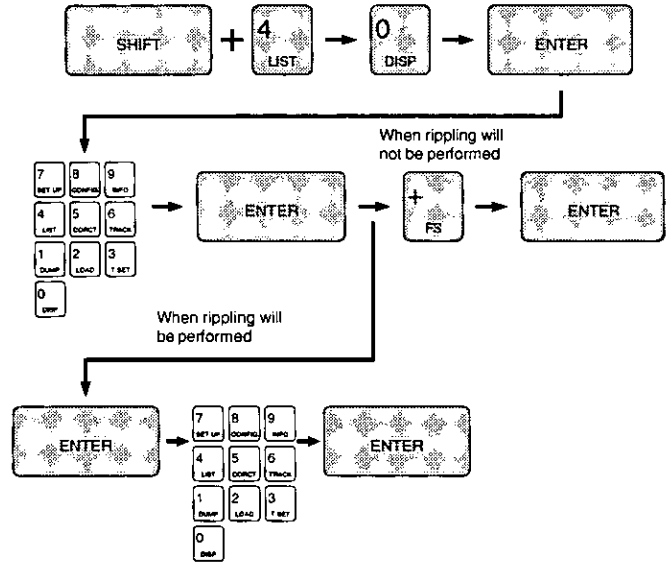
1) Clearing all the edit data



❶ Press the EVENT button.
❷ Press the [9] button four times. "9999" now appears on the EVENT/TRANS/PATTERN display.
❸ Press the ENTER button while holding down the SHIFT button. All the edit data in the EDL memory is now cleared.

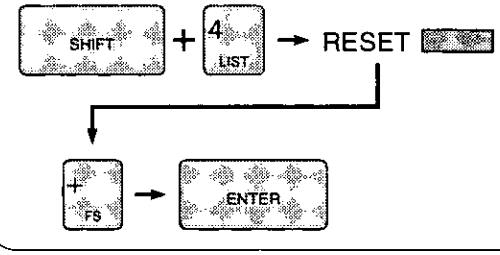
[Note]
In the multi EDL registration mode (256 events×2 lists mode), the edit data in the list displayed is cleared from the EDL memory.

2) Specifying a range and clearing the edit data in that range



❶ Press the LIST (SHIFT+4) button.
❷ Press the [0] button.
❸ Press the ENTER button.
❹ Input the event number to be cleared using the 0 to 9 number keys. To clear a multiple number of events, press the [~] button after inputting the number of the first event to be cleared, and then input the number of the last event to be cleared.
❺ Press the ENTER button. The edit data in the events assigned in step 4 is now cleared.
❻ To proceed with rippling, press the ENTER button. To cancel rippling, press the "+" button to change the display from YES to NO, and then press the ENTER button.
❼ When the decision was made in step 6 to proceed with rippling, input the numbers of the events to be rippled using the 0 to 9 and [~] buttons.
❽ Press the ENTER button. The events assigned in step 7 are now rippled.

3) Initializing the EDL memory



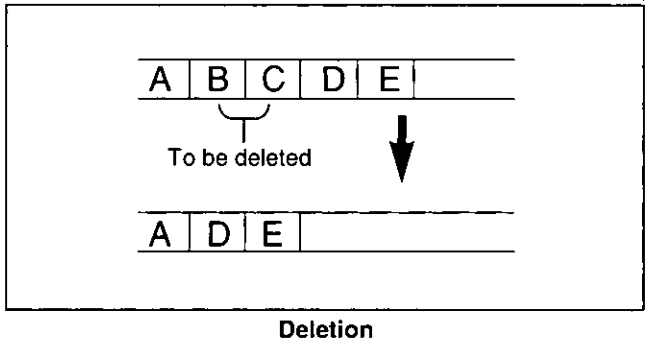
❶ Press the LIST (SHIFT+4) button.
❷ Press the RESET button below the player time display.
❸ Press the "+" button to change the display from NO to YES.
❹ Press the ENTER button. All the edit data in the EDL memory is now cleared.

[Note]
In the multi EDL registration mode (256 events×2 lists mode), the edit data in not only the list displayed but the other list as well is cleared from the EDL memory.

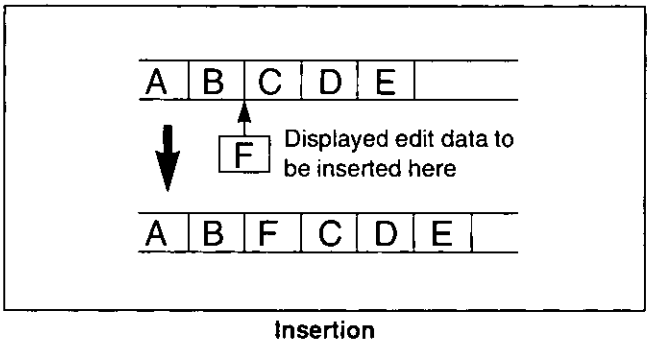
Listing Edit Data (LIST)

The AG-A850 comes with the following list management functions.

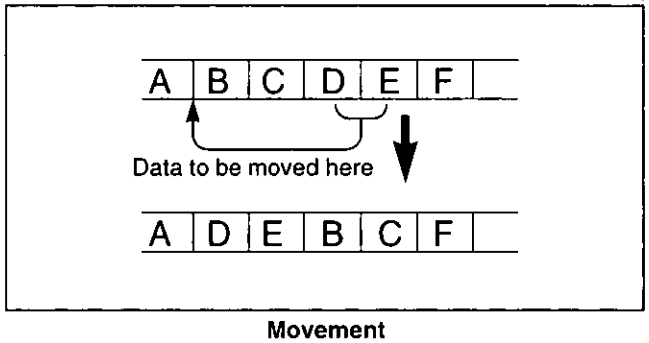
1) **ERASE:** for erasing all the edit data in the EDL memory.
2) **DELETE:** for selecting the event range and deleting the edit data in that range.
3) **INSERT:** for inserting an event at the desired location in the EDL memory.
4) **TRANSFER:** for moving edit data to a desired location in the EDL memory.
5) **COPY to NEW:** for copying edit data into a new event.
6) **LINE-UP:** for rearranging the edit points of the recorder.
7) **RENUMBER:** for renumbering the event numbers in the order in which they were entered.
8) **COPY:** for copying edit data at any position in the EDL memory.
9) **R (REC) MARK:** for repeating multi-event editing for specific events which have already been recorded.



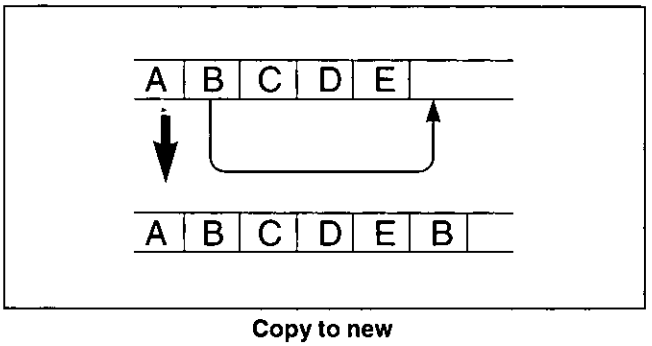
Deletion



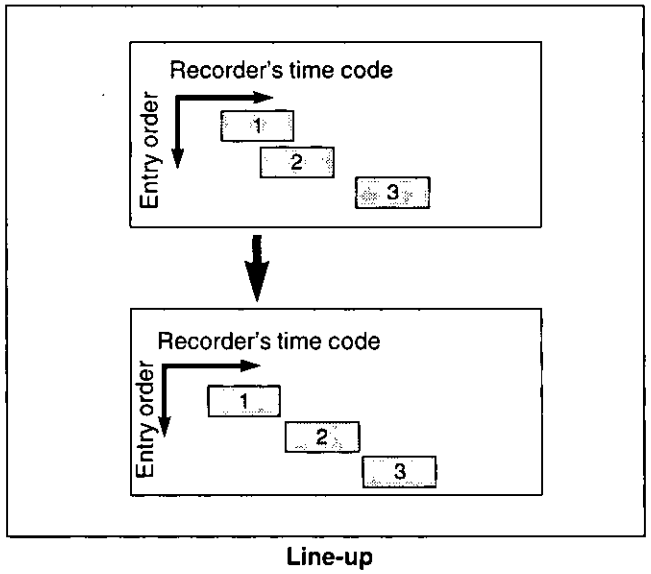
Insertion



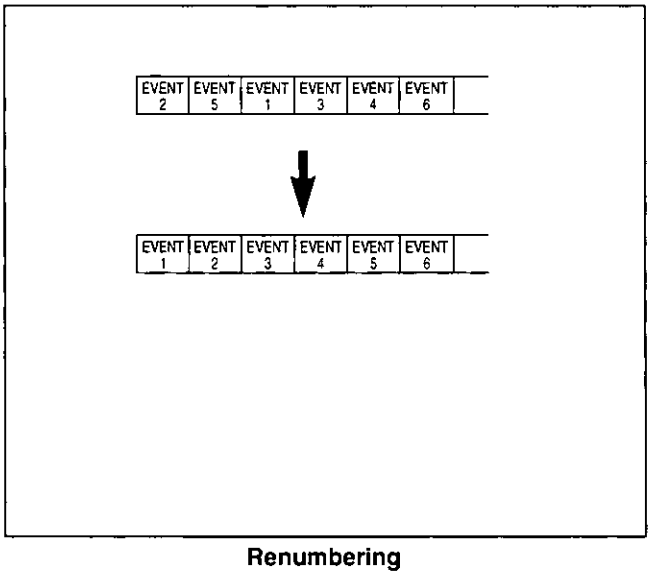
Movement



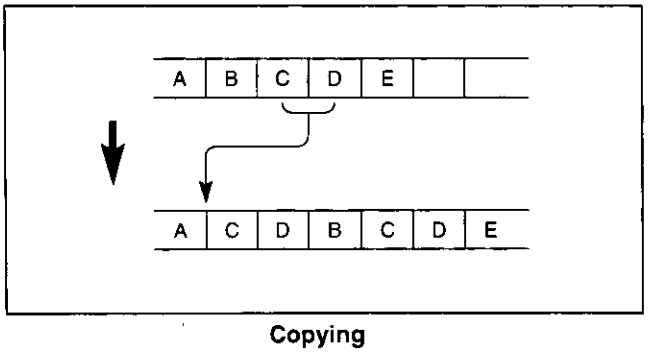
Copy to new



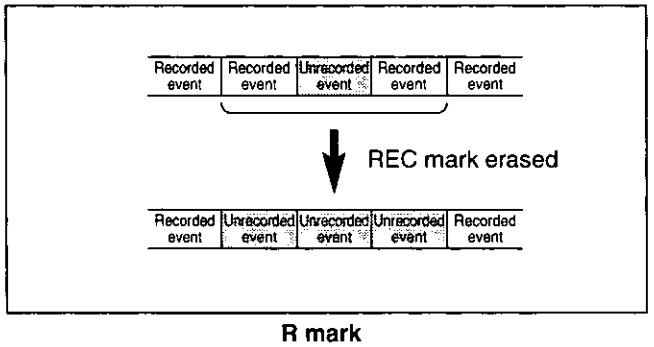
Line-up



Renumbering



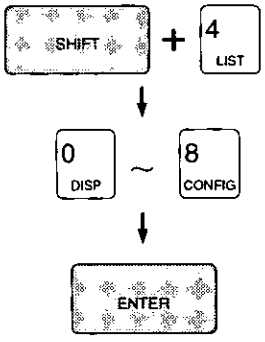
Copying



R mark

Listing Edit Data (LIST)

Operation



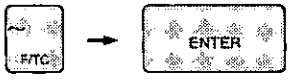
❶ Press the LIST (SHIFT+4) button. The EDL now appears on the screen. "EdL" appears on the player time display unit.

❷ Select the list management function using one of the 0 to 8 buttons, and press the ENTER button.

Button	Function	Panel display
[0]	ERASE	ErS
[1]	DELETE	dEL
[2]	INSERT	inS
[3]	MOVE	trn
[4]	COPY to NEW	CPn
[5]	LINE-UP	LuP
[6]	RENUMBER	rno
[7]	COPY	CPy
[8]	REC MARK	rEC

❸ Subsequent steps differ according to the list management function selected. To suspend the operation at any time, press the EXIT and RETURN buttons, etc.

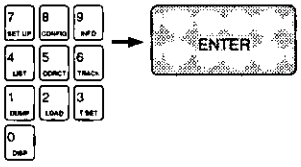
1) ERASE (when the 0 button is pressed in step 2)



❹ Press the [~] button.

❺ Press the ENTER button. All the edit data in the EDL memory is erased.

2) DELETE (when the 1 button is pressed in step 2)



❹ Input the number of the event to be deleted using the 0 to 9 number keys.
When a multiple number of events are to be deleted, first input the number of the deletion start event, press the [~] button, and then input the number of the deletion end event.

❺ Press the ENTER button. The edit data of the event or events assigned in step 4 is deleted. The displayed event is deleted if no event or events are assigned in step 4.

❻ To proceed with rippling, press the ENTER button. To cancel the rippling, press the "+" button to change the display from YES to NO, and then press the ENTER button.

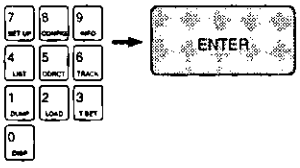
❼ When the decision was made in step 6 to proceed with rippling, input the numbers of the events to be rippled using the 0 to 9 and [~] buttons.

❽ Press the ENTER button. The events assigned in step 7 are now rippled.

[Reference]

- Even when the edit data is deleted, it still remains in the EDL memory so it can be called using the EVENT button.
- When deletion is performed with a new event without assigning an event number, the displayed edit data is deleted. The deleted edit data of new events cannot be called.

3) INSERT (when the 2 button is pressed in step 2)



❹ Input the number of the event after which the data is to be inserted using the 0 to 9 number keys.

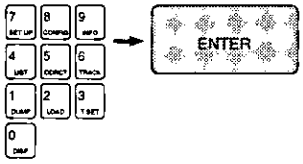
❺ Press the ENTER button. The displayed edit data is inserted after the event whose number was assigned in step 4. It is inserted after the displayed event if no event is assigned in step 4.

❻ To proceed with rippling, press the ENTER button. To cancel the rippling, press the "+" button to change the display from YES to NO, and then press the ENTER button.

❼ When the decision was made in step 6 to proceed with rippling, input the numbers of the events to be rippled using the 0 to 9 and [~] buttons.

❽ Press the ENTER button. The events assigned in step 7 are now rippled.

4) MOVE (when the 3 button is pressed in step 2)



❹ Input the number of the event to be moved using the 0 to 9 number keys. When a multiple number of events are to be moved, first input the number of the movement start event, press the [~] button, and then input the number of the movement end event.
❺ Press the ENTER button. The edit data of the event or events assigned in step 4 is moved to the position immediately after the event applying when the LIST button was pressed.
❻ To proceed with rippling, press the ENTER button. To cancel the rippling, press the "+" button to change the display from YES to NO, and then press the ENTER button.
❼ When the decision was made in step 6 to proceed with rippling, input the numbers of the events to be rippled using the 0 to 9 and [~] buttons.
❽ Press the ENTER button. The events assigned in step 7 are now rippled.

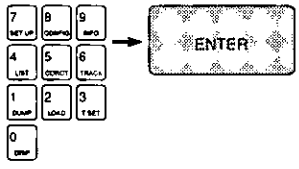
[Note]
An error may occur when the movement destination event is included among the events to be moved.

5) COPY to NEW (when the 4 button is pressed in step 2)

❹ Press the ENTER button. The edit data of the displayed event is copied to a new event.

6) LINE UP (when the 5 button is pressed in step 2)

This function changes the related time codes to ensure that the recorder's edit points are lined up in succession for editing.



❹ Input the position of the event number to be lined up using the 0 to 9 number keys. When a multiple number of events are to be lined up, input the start event number first, press the [~] button, and then input the end event number.
❺ Press the ENTER button. The edit data of the event or events assigned in step 4 is lined up.

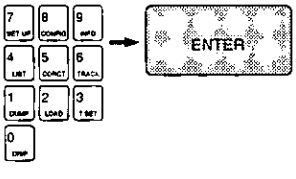
7) RENUMBER (when the 6 button is pressed in step 2)

❹ Press the ENTER button. The event numbers, which are no longer consecutive due to the deletion, movement, etc. of the edit data, are renumbered consecutively starting from 1.

[Note]
When events are renumbered, the deleted edit data is completely cleared from the EDL memory.

[Reference] Monitor screen during LIST operation
When the LIST button is pressed, the edit data of the events before and after the displayed event appears as shown below. The selected list management function is displayed on the bottom line of the screen.

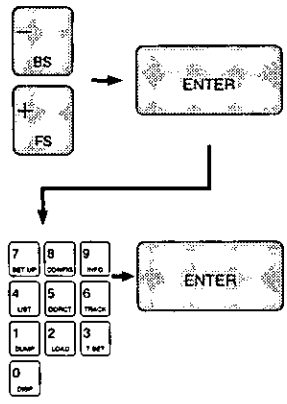
8) COPY (when the 7 button is pressed in step 2)



❹ Input the event number to be copied using the 0 to 9 number keys.
When a multiple number of events are to be copied, input the copy start event number first, press the [~] button, and then input the copy end event number.
❺ Press the ENTER button. The edit data of the event or events assigned in step 4 are copied onto the position immediately after the event applying when the LIST button was pressed.
❻ To proceed with rippling, press the ENTER button. To cancel the rippling, press the "+" button to change the display from YES to NO, and then press the ENTER button.
❼ When the decision was made in step 6 to proceed with rippling, input the event numbers to be rippled using the 0 to 9 and [~] buttons.
❽ Press the ENTER button. The events assigned in step 7 are now rippled.

[Note]
An error may occur when the copy destination event is included among the events to be copied.

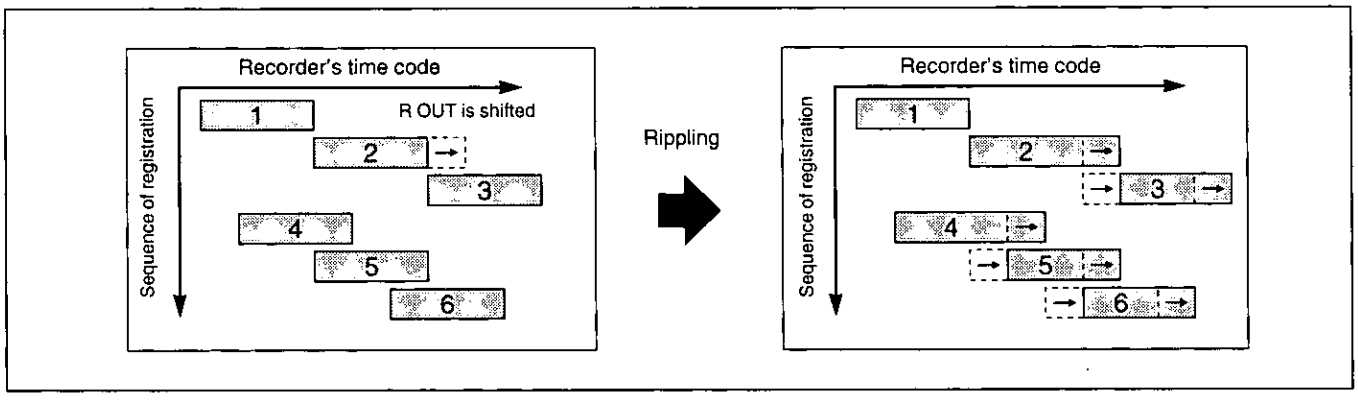
9) R (REC) MARK (when the 8 button is pressed in step 2)



❹ Select whether to clear or set the R mark using the [+] or [−] button. Cause "Clr" to be displayed if the mark is to be cleared; cause "SET" to be displayed if it is to be set.
❺ Press the ENTER button.
❻ Input the number of the event to be made subject to the R marking using the 0 to 9 number keys. When a multiple number of events are to be made subject to the R marking, input the start event number first, press the [~] button, and then input the end event number.
❼ Press the ENTER button. The events assigned in step 6 are now made subject to R marking.

[Reference] Concerning the R (pre-recorded) mark
When automatic editing is completed normally, the events concerned are registered in the EDL memory as edited events. (When the ALL STOP button is pressed before the AUTO EDIT button goes off, the events may not be registered.)
The "R" mark appears after the event numbers concerned on the monitor display to differentiate them from other events. When proceeding with multi-event editing or when skipping already edited events, set SKIP (R) MRK EVENT on the SET UP menu to ON.

[Reference] Rippling
In order to ensure that continuous editing, this function changes the related time codes to correct the discrepancies in the recorder's edit points caused by the changes made to the recorder OUT points or by clearing or moving the edit data.



[Reference] Monitor screen during LIST operation
When the LIST button is pressed, the edit data of the events before and after the displayed event appears as shown below. The selected list management function is displayed on the bottom line of the screen.

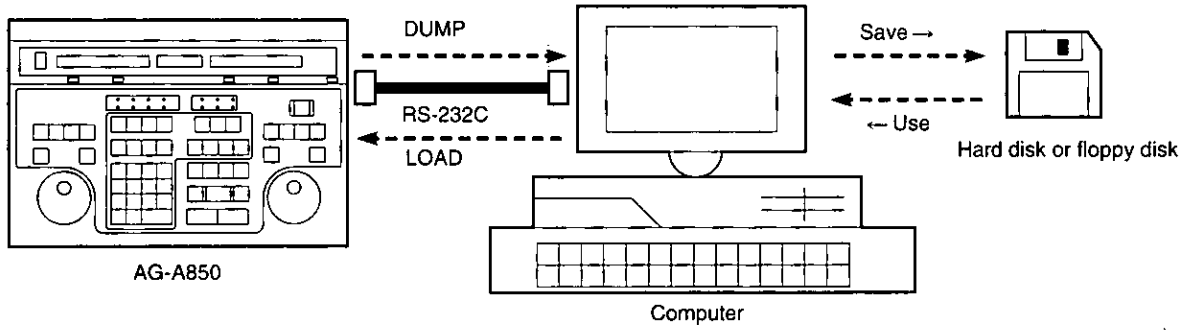
```
0213R    (P2>P1)     VA1234
 Diss        Tr01:10
 00:51:29:07  00:50:55:14
0214     (P1>P2)     VA1234
 Wipe0015R Tr01:10 A S G
 00:51:29:07  00:51:11:21
New0215 (P1)         VA1234
 Cut
 --:--:--:--  00:51:41:07
EDL1 DELETE    0100>0120
```

- The edit data of each event is displayed in 3 digits, the first two of which are the same as the regular status display.
- The last digit of each event indicates the edit IN point of the FROM source for data on the right and the edit IN point of the recorder VTR for data on the left of the screen.

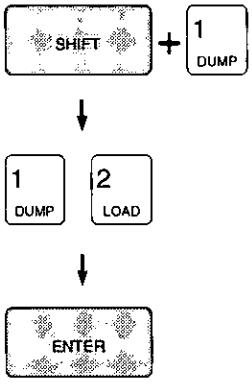
Transferring Edit Data To External Destinations (DUMP)/Loading Edit Data From External Sources (LOAD)

Edit data entered in the EDL memory can be transferred to an external device via the RS-232C connector. For instance, a wide range of system applications and control operations can be made available as indicated below by outputting data to a computer or loading data from a computer.

1) Editing material off-line on the AG-A850 and using the edited data in an on-line system
2) Saving the edit data on a hard disk or floppy disk
3) Checking the edit data by displaying it on the computer screen or printing it out



Operations for dumping the data

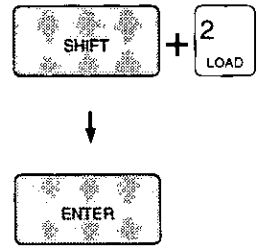


❶ Set up the computer or other external device so that it can receive the data.
❷ Press the DUMP (SHIFT+1) button. "DUMP" now appears on the screen. "dP" appears on the player's timer display unit.
❸ Select the output EDL format using the 1 or 2 button, and press the ENTER button. If the ENTER button is pressed without pressing the 1 or 2 button, the format set by EDL FORMAT in SET UP will be selected.

[1] button:	AG-A850 format
[2] button:	CMX340 format

❹ The edit data (EDL) is output from the RS-232C connector. The event number being output is displayed on the counter unit.
❺ The operation is completed when all the edit data in the EDL memory has been transferred. To stop the data dumping at any time, press the ALL STOP button on the player's timer display unit.

Operations for loading the data



❶ Press the LOAD (SHIFT+2) button. "LOAD" now appears on the screen. "ld" appears on the player's timer display unit.
❷ Press the ENTER button to start receiving the edit data.
❸ The data is sent from the computer or other external devices. The event number being received is displayed on the counter unit.
❹ The operation is completed when the computer stops sending data or the EDL memory is full. To stop the data loading at any time, press the ALL STOP button.

[Note]
The settings for the external device must be performed before the data is to be dumped or loaded.

Transferring Edit Data To External Destinations (DUMP)/Loading Edit Data From External Sources (LOAD)

[Reference] External device settings and communication method
The external device settings and data communication method differ for each device. For details on settings and operations, refer to the manuals provided with the device, its operating system (DOS) and communications software or contact the manufacturer of the connected device.

1) **Use the same communications protocol for the AG-A850 and external device.**
   The AG-A850's communications protocol can be changed in RS-232C PROTOCOL of SET UP.
   [**Default (factory) settings:** baud rate=9600 bps, data length=8 bits, stop bit=1 bit, parity=odd]
   The settings for the external device are changed using switches or the RS-232C protocol setting program (MODE and SPEED commands).
   [Setting example 1] MODE COM1 BAUD-9600 PARITY=0, DATA=8, STOP=1
   [Setting example 2] SPEED RS232C-0 9600 BITS=8, PARITY=ODD, STOP=1 NONE
   If no changes can be made at the external device, adjust the AG-A850's settings to match those of the external device.
2) **To receive data at the external device's RS-232C connector:**
   Input "COPY AUX ___/A"
   or
   "COPYA AUX ___" (where ___ is the filename),
   and press the DUMP button. This method can be used with many computers to receive data.
3) **To send data from the external device's RS-232C connector:**
   Press the LOAD button, and then input
   "COPY ___/B AUX"
   or
   "COPYA ___ AUX" (where ___ is the filename).
   This method can be used with many computers to send data.

[Reference] EDL formats
Two data formats, AG-A850 and CMX340, are used to send edit data (EDL) to a personal computer or other external device. The data format of the AG-A800 can also be loaded.

1) **AG-A850:** This is the AG-A850's own format. It sends all the edit data in the EDL memory so that when dumped data has been loaded again, the edit data can be restored completely. (This does not apply with TC insert editing.)

[Output example]

```
TITLE: PANASONIC EDITING CONTROLLER AG-A850

EVENT REEL MODE    TYPE    TRANS P-VTR IN     P-VTR OUT    R-VTR IN     R-VTR OUT
0001R 0008 VA1234 C             00:00:00:00 00:00:05:00 00:00:00:00 00:00:05:00
0001R 0001 VA1234 D       01:10 00:01:05:00 00:01:00:00 00:00:05:00 00:00:10:00
0001R      SPEED  REEL 0001     -100        00:01:05:00
0001R      GPI1   REEL 0001     00:01:04:00
0001R      GPI1   RECORDER      00:00:07:00
0002R 0001 VA1234 C             00:01:00:00 00:00:53:00 00:00:10:00 00:00:17:00
0002R 0005 VA1234 W0050R 02:00  00:00:00:00 00:00:03:00 00:00:17:00 00:00:20:00
0002R      SPEED  REEL 0001     -100        00:01:00:00
0002R      GPI1   FROM IN       -01:00
0002R      GPI1   TO OUT        -00:10
0003D 0001 ASMBL  C             01:21:51.07 01:21:51.20 00:01:49:11 00:01:49:24
0004R AUDIO SPLIT REC IN        -01:00
0004R 0002 VA1234 C             01:05:12:05 01:05:19:05 00:00:20:00 00:00:27:00
0005R AUDIO SPLIT RECORDER      00:00:26:00
0005R 0003 VA1234 C             00:51:06:10 00:00:09:10 00:00:27:00 00:00:30:00
0005R 0002 VA1234 D       01:20 01:02:10.00 01:01:15.00 00:00:30:00 00:00:35:00
0006  0002 VA1234 C             01:01:15.00 01:01:20.00 00:00:35:00 00:00:40:00
0007  0001 VA1234 C             00:00:00:00 --:--:--:-- 00:00:00:00 --:--:--:--
```

Player IN point / Player OUT point / Recorder IN point / Recorder OUT point

Effect (type, pattern No., transition)
Type C: cut D: dissolve W: wipe
Pattern signal R: reverse pattern

Editing mode VA1234: insert editing ASMBL: assemble editing

Reel No. 0001: P1 0002: P2 0003: P3 0004: P4
0005: AUX1 0006: AUX2 0007: AUX2 0008: AUX4

Event No. R: edited event D: deleted event

2) **AG-A800:** This is the AG-A800 format. The part of the data is converted and loaded.
   (1) Reel numbers
   P1:001, P2:002, AUX1:AX, AUX2:004, AUX4:BL
   (2) DSK:
   Converted to GPI1.
   (3) EFFECT, OUT point audio splits:
   Not loaded
   (4) Fade in, fade out:
   Not loaded

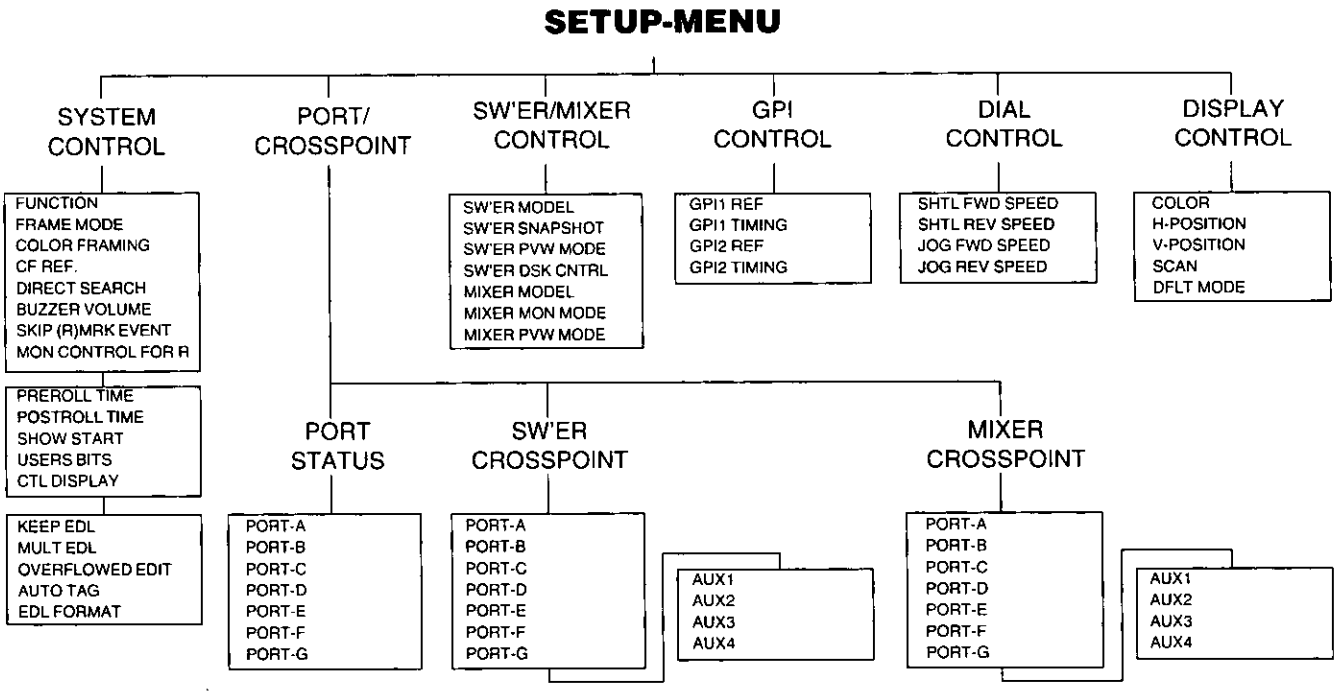
3) **CMX340:** Format shared with CMX340. Part of the data is converted so that it will not be restored completely even if the dumped data is loaded again.

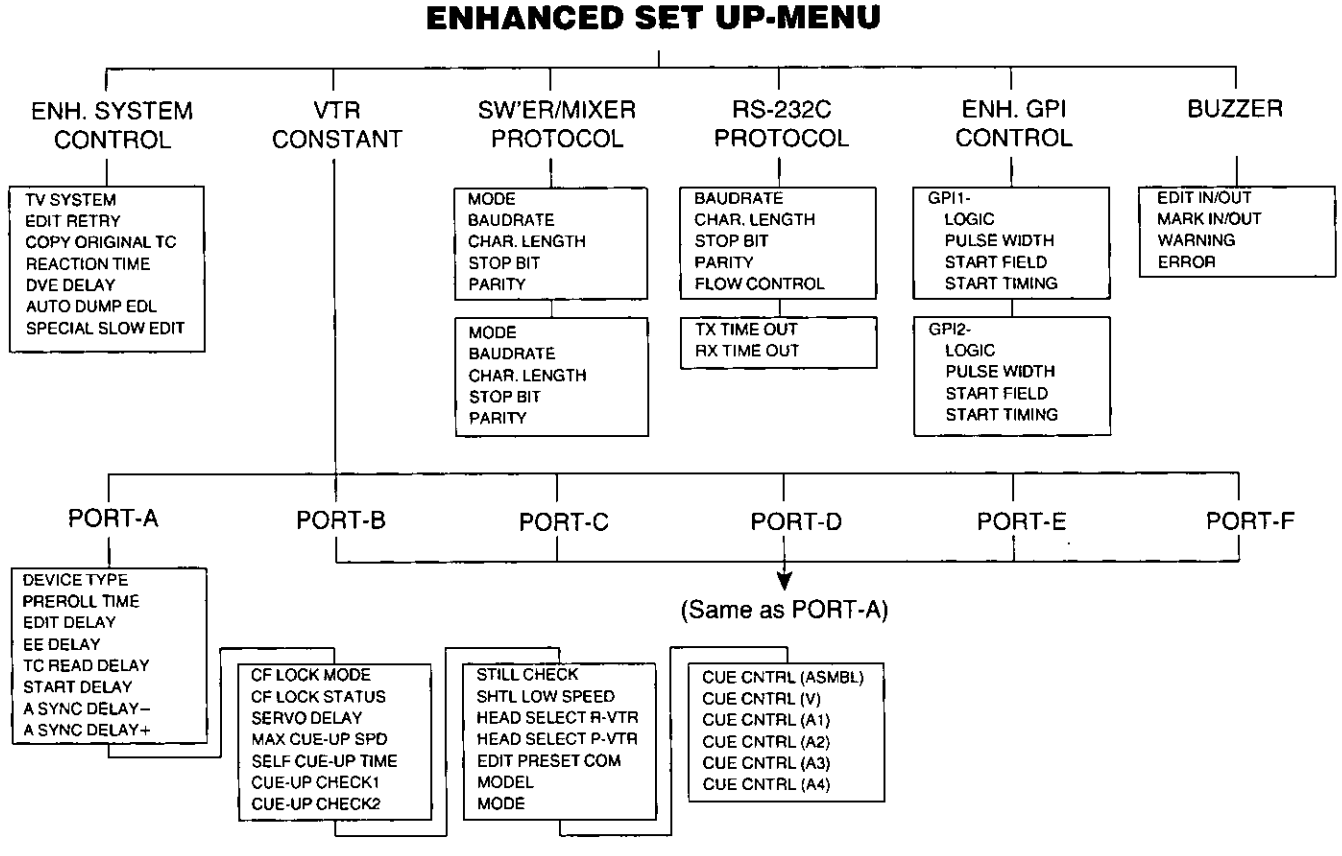
   (1) Event numbers
   Data entered with an event number of 1000 or above in the EDL memory is not output. Data of deleted events are not output either.
   (2) Reel numbers
   The sources are converted as follows when outputting reel numbers.
   P1:001, P2:002, P3:003, P4:004, AUX1:AX, AUX2:006, AUX3:007, AUX4:BL
   (3) Editing modes
   The modes are converted as follows and output.
   • Assemble→Insert (V, A1, A2)
   • Insert (A3)→Insert (A1)
   • Insert (A4)→Insert (A2)
   When the editing mode has not been set, it is converted to insert (V, A1, A2).
   (4) Wipe pattern number
   Only the last 3 digits of the 4-digit pattern number are output. If the last 3 digits are zeros, the pattern number will be 001. Reverse patterns have the same numbers as regular patterns.
   (5) Transition time
   Any time exceeding 999 frames is output as 999 frames.
   (6) GPI
   The GPI which was set at set-up is not output.
   (7) Sync roll editing is not output.
   (8) Audio splitting and GPI settings are not output during slow-motion editing.

SET UP mode

The SET UP mode is configured as shown below.

Refer to the AG-A850 settings for the operating procedure.





denotes the setting items.

System set-up (SYSTEM CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
01 1-01	FUNCTION	00 [01] 02 03	LIMITED [FULL] SINGLE DIAL SPECIAL	This item is used to select the operation mode. LIMITED: The limited operation mode is established in which the AG-A850 can be used exclusively for single event and cut editing and in which only those functions required by limited editing can be operated. The functions whose operation is restricted in the limited operation mode are indicated by the black frame on the operation panel. They include all the buttons except IN, OUT, DUR, SET UP, DISP and INFO. FULL: The standard operation mode is established, in which all the functions featured by the AG-A850 are operable. SINGLE DIAL: This enables the VTR selected on the VTR source selection area (R, P1, P2, P3, P4) to be operated by both recorder and player control section. Other operations are the same as in the standard operation mode. SPECIAL: In this mode, some special functions are added to the SINGLE DIAL mode. Normally, this setting is not used. For further details, refer to "Troubleshooting" (page 85). **Note:** The edit data in the EDL memory may be lost when FUNCTION is switched.
01 1-02	FRAME MODE (valid only in NTSC mode)	[00] 01	[NON DROP] DROP	Either the drop frame mode or non-drop frame mode is selected for the time code which is to be recorded with the first edit function or TC insert editing. The setting must match the recorder's tape mode.
01 1-03	COLOR FRAMING	[00] 01 (NTSC mode) [00] 01 02 (PAL mode)	[OFF] ON [OFF] 4 FIELD 8 FIELD	This selects whether to lock CF (color frame) for the VTR in order to proceed with color frame editing. (NTSC mode) OFF: No color framing editing is performed. ON: Color frame editing is performed. The edit point is moved by a maximum of 1 frame. (PAL mode) OFF: No color framing editing is performed. 4 FIELD: Color frame editing is performed. The edit point is moved by a maximum of 1 frame. 8 FIELD: Color frame editing is performed. The edit point is moved by a maximum of 3 frames. **Note:** Some restrictions may apply depending on the VTR used. For further details, refer to "Troubleshooting" (page 85).
01 1-04	CF REF.	[00] 01 02	[ALL VTR] TIME CODE R ONLY	This sets the reference for color frame lock when color framing editing is to be performed. It is effective when OFF has not been selected for COLOR FRAMING. ALL VTR: The CF lock status is established by the VTR itself. All the VTRs involved in editing must be equipped with the CF lock function. TIME CODE: The time codes on the tape are used as the reference for editing. The color frame phases of each VTR are set on the CONFIG menu. The recorder VTRs must be equipped with the CF lock function. When the color frame phase cannot be specially designated, refrain from selecting it. R ONLY: The CF lock status is established for the recorder VTR only. The recorder VTR must be equipped with the CF lock function.

[ ] denotes the default (factory) setting.

System set-up (SYSTEM CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
01 1-05	DIRECT SEARCH	00 [01]	OFF [ON]	At the OFF setting, dial operations are performed after the STILL button has been pressed. At the ON setting, the selected VTRs are automatically set to the search mode by turning the dial.
01 1-06	BUZZER VOLUME	00 [01] 02 03	LOUD [MIDDLE] LOW SILENT	This setting adjusts the volume of the buzzer which sounds when an error has occurred or when the MARK IN or MARK out button is pressed. LOUD: Maximum volume LOW: Minimum volume MIDDLE: Medium volume SILENT: No sound
01 1-07	SKIP (R)MRK EVENT	[00] 01	[OFF] ON	This sets whether edited events are to be edited again when multi-event editing is performed. ON: Editing proceeds with the already edited events skipped. OFF: The already edited events are also edited. [Reference] The "R" mark is displayed after the number of already edited events on the monitor display.
01 1-08	MON CONTROL FOR R	[00] 01	[OFF] ON	This sets the output control of the recorder VTR when it is not in the editing mode. ON: The recorder VTR is set to the EE mode when "P1/AUX1," "P2/AUX2," "P3/AUX3" or "P4/AUX4" is selected on the VTR source selection area. The pictures and sound of the VTR selected as the source can be monitored on the recorder monitor. OFF: The recorder monitor monitors only the recorder VTR regardless of what has been selected on the VTR source selection area. **Note:** Set this item to OFF when LIMITED has been selected for the FUNCTION item.
01 1-09	PREROLL TIME	[00] 01 02 03 04 05 06	[AUTO] 0 s 3 s 5 s 7 s 10 s 15 s	This setting establishes the time (in seconds) during which the tape is rewound in excess from the IN point in order to achieve synchronization, etc. (preroll time). Normally, the AUTO setting is used. [Reference] The preroll time for editing may be restricted by the VTR CONSTANT setting on the SET UP menu. At the AUTO setting, the preroll time is automatically determined by what combination of VTRs is used for editing and by the CF ON/OFF and other statuses.
01 1-10	POSTROLL TIME	00 [01] 02 03 04 05 06	0.5 s [1 s] 2 s 3 s 5 s 7 s 10 s	This setting establishes the time (post-roll time) from the completion of tape editing to the stopping of the tape when performing the auto edit, preview or review. [Reference] The postroll time may be a little bit longer than the setting.
01 1-11	SHOW START	[UNDEFINED] or 00:00:00:00~ 23:59:59:29 (NTSC) 00:00:00:00~ 23:59:59:24 (PAL)		This sets the start time at which to start counting the total time of the program to be edited. If this item is not set, the recorder IN point entered in the first event of the EDL memory is used as the reference for calculating the total time. When the C button is pressed, UNDEFINED (no setting) is established. (When this item is not set, "-:-:-:-" appears on the recorder's time display unit.)
01 1-12	USERS BITS	[00000000] ~ FFFFFFFF		This sets the user's bit of the time code to be recorded in the recorder. An 8-digit setting in hexadecimal notation (0 to F) can be used. To input the letters A through F, press the SHIFT+1 through SHIFT+6 buttons.

[ ] denotes the default (factory) setting.

System set-up (SYSTEM CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
01 1-13	CTL DISPLAY	[00]	[24 H]	When CTL has been selected as the display time, this item sets the display range concerned. (24 H) 00:00:00:00~23:59:59:29 (24) (+/−10 H) −9:59:59:29 (24)~14:00:00:00 (Figures in parentheses apply for the PAL system.) **Note:** A minus time code cannot be input when this item is set to [+/−10H] and audio split or GPI is to be set. Even when an already set edit point is to be changed, it is done by correcting the time code which has been set when a minus time code is input.
		01	+/−10 H	
01 1-14	KEEP EDL	00	OFF	This is set to ON to retain the edit data in the EDL memory even after the power has been turned off. The data can be backed up for 3 days (when the power has been kept on continuously for at least 2 hours).
		[01]	[ON]	
01 1-15	MULT EDL	[00]	[512]	This sets whether to use the EDL memory for 512 consecutive events or for two lists each containing 256 events. 512: Data of up to 512 events can be registered, and continuous editing or list management operations can be conducted for all the events. 256×2: Two lists containing data of up to 256 events each can be registered. The lists can be selected using the CHANGE EDL (ENTER+EVENT) button, and continuous editing or list management operations can be conducted separately for the events of each list. **Note:** The EDL memory is initialized when this setting is changed.
		01	256×2	
01 1-16	OVERFLOWED EDIT	[00]	[OFF]	This selects the processing mode to be used when registering the edit data of more than 512 events. OFF: The EDL OVERFLOW error results, and no more new events can be registered. The events no longer required must be deleted using LIST before new events can be registered. ON: The events registered are deleted in sequence from the events registered, and new events are registered in their place.
		01	ON	
01 1-17	AUTO TAG	00	R/P	When the FS button is pressed to enter edit data in the EDL memory and move to the next event, the edit OUT point of the previous event is automatically set as the edit IN point of the new event. R/P: The player and recorder IN points are calculated and set automatically in such a way that they connect to the previous event. R: Only recorder IN point is calculated and set automatically in such a way that it connects to the previous event. OFF: No edit points are automatically set.
		[01]	[R]	
		02	OFF	
01 1-18	EDL FORMAT	[00]	[AG-A850]	This selects the data format when EDL data is to be output to the computer or other external device using the RS-232C connector. For details on the formats available, refer to the section on data management (DUMP, LOAD).
		01	CMX340	

[ ] denotes the default (factory) setting.

Port set-up (PORT/CROSS POINT)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
	PORT STATUS			These items set which devices are to be connected to the RS-422 connectors (PORT-A to PORT-G) on the connector panel. The recorder, a player (P1–P4) video switcher or audio mixer can be selected for each port. Furthermore, the players can be made to perform the same editing operations as the recorder but setting them as the slaves [P1 (SLAVE) to P4 (SLAVE)] of the recorder. By this means, a multiple number of tapes can be recorded simultaneously. Up to two slave players can be set. Default (factory) settings PORT-A: 04 [R] PORT-D: 02 [P3] PORT-B: 00 [P1] PORT-E: 03 [P4] PORT-C: 01 [P2] PORT-F: 80 [SW'ER] PORT-G: 81 [MIXER] **Note:** Only SW'ER and MIXER can be set for PORT-G.
02 1-01	PORT-A	00	P1	
02 1-02	PORT-B	01	P2	
02 1-03	PORT-C	02	P3	
02 1-04	PORT-D	03	P4	
02 1-05	PORT-E	04	R	
02 1-06	PORT-F	10	P1 (SLAVE)	
02 1-07	PORT-G	11	P2 (SLAVE)	
		12	P3 (SLAVE)	
		13	P4 (SLAVE)	
		80	SW'ER	
		81	MIXER	
		FF	NONE	
	SW'ER CROSS POINT	NONE or 00–16		These items set the relationship between the RS-422 connectors (PORT-A to PORT-G) and auxiliary sources (AUX1 to AUX4), and the input channels of the video switcher. When the C button is pressed, the NONE (no setting) status is established. (In this status, "FF" appears on the recorder's time display unit.) Default (factory) settings PORT-A: NONE PORT-D: 03 AUX1: 05 PORT-B: 01 PORT-E: 04 AUX2: 06 PORT-C: 02 PORT-F: NONE AUX3: 07 PORT-G: NONE AUX4: 00
02 2-01	PORT-A			
02 2-02	PORT-B			
02 2-03	PORT-C			
02 2-04	PORT-D			
02 2-05	PORT-E			
02 2-06	PORT-F			
02 2-07	PORT-G			
02 2-08	AUX1			
02 2-09	AUX2			
02 2-10	AUX3			
02 2-11	AUX4			
	MIXER CROSS POINT	NONE, EXT or 00–16		These items set the relationship between the RS-422 connectors (PORT-A to PORT-G) and auxiliary sources (AUX1 to AUX4) and the input channels of the audio mixer. When the C button is pressed, the NONE (no setting) status is established. When the audio output signals have been connected to the external input connectors on the audio mixer, use the EXT (external setting). (In the no setting status, "FF" appears on the recorder's time display unit, and "FE" appears when the EXT setting has been selected.) Default (factory) settings PORT-A: EXT PORT-D: 03 AUX1: 05 PORT-B: 01 PORT-E: 04 AUX2: 06 PORT-C: 02 PORT-F: NONE AUX3: 07 PORT-G: NONE AUX4: 00
02 3-01	PORT-A			
02 3-02	PORT-B			
02 3-03	PORT-C			
02 3-04	PORT-D			
02 3-05	PORT-E			
02 3-06	PORT-F			
02 3-07	PORT-G			
02 3-08	AUX1			
02 3-09	AUX2			
02 3-10	AUX3			
02 3-11	AUX4			

[ ] denotes the default (factory) setting.

Switcher/mixer set-up (SW'ER/MIXER CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
03 1-01	SW'ER SELECT	00	WJ-MX50	This sets the type of video switcher which is to be used. **Note:** When the KM-3000 or VPS-300 has been connected, switch on the video switcher's power before turning on the power of the AG-A850.
		01	GVG-100	
		02	DFS-500	
		03	AS-D700	
		04	BVS-3000	
		05	KM-3000	
		06	VPS-300	
03 1-02	SW'ER SNAPSHOT	00	OFF	This sets whether the snapshot function is to be controlled when the DFS-500 video switcher is used. When the limited operation mode (LIMITED) has been set for FUNCTION in SET UP, the snapshot function is not controlled regardless of the setting. ON: The snapshot function is controlled. OFF: The snapshot function is not controlled. **Note:** The events which can be controlled range from numbers 1 to 99.
		01	ON	
03 1-03	SW'ER PVW MODE	00	EE	This selects the video switcher operation during automatic editing, preview or review. EE: This is selected for monitoring using the video output of the recorder VTR. FULL: This is selected when the video output of the recorder VTR is to be input to the video switcher and monitored at PGM OUT of the video switcher. The recorder VTR must also have a TBC capability. [Reference] For monitoring using only the video and audio outputs of the recorder VTR, select EE, and set MON CONTROL FOR R on SET UP to ON. **Note:** •Use the EE setting for a video switcher (such as the WJ-MX50 or DFS-500) which does not have a frame synchronizer at each input. •If the FULL setting is used, the V, A1 and A2 buttons in the editing mode setting area will not work during preview.
		01	FULL	
03 1-04	SW'ER DSK MODE	00	OFF	This sets whether the DSK fade-in/out timings are to be controlled when the WJ-MX50 or GVG-100 video switcher is used. OFF: The timings are not controlled. GPI1: The timings are controlled in accordance with the GPI1 settings. The DSK transition time is set by the video switcher. [Reference] Use only the 9P remote control cable to connect the AG-A850 with the video switcher. The GPI cable need not be connected. **Note:** Normal operation may not be possible if the DSK fade-in and fade-out are set when the video switcher is being used for wipe or dissolve effects.
		01	GPI1	
03 1-05	MIXER SELECT	00	PAM-300	This sets the type of the audio mixer which is to be used. If the audio mixer is not provided with serial control functions for supporting ESAM II or ESAM II-EXTENDED, the optional serial interface board is required for the audio mixer. For further details, refer to "VTR/switcher settings."
		01	MXP-S390	
		02	DESAM200	

[ ] denotes the default (factory) setting.

Switcher/mixer set-up (SW'ER/MIXER CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
03 1-06	MIXER MON MODE	00	LINE	This selects the operation to be performed when a control in the VTR source selection area has been operated. LINE: This is set for monitoring at the line output of the audio mixer. PVW: This is set for selecting the signals using the preview bus of the audio mixer. MIX: This is set for switching the signals using the line output bus and preview bus of the audio mixer. •When the R button has been pressed, the signals are switched to the preview bus. •When the P1/AUX1, P2/AUX2, P3/AUX3 or P4/AUX4 button has been pressed, the signals are switched to the line output. PARA: This is set for switching the signals using both the line output bus and preview bus of the audio mixer. [Reference] •For monitoring using the video and audio outputs of the recorder VTR, select LINE, and set MON CONTROL FOR R on SET UP to ON. •For monitoring using the audio mixer, supply the audio output signals of the recorder VTR to the audio mixer. **Note:** Depending on the model used for the audio mixer model, it may not be possible to control the preview bus.
		01	PVW	
		02	MIX	
		03	PARA	
03 1-07	MIXER PVW MODE	00	EE	This selects the operation of the audio mixer during automatic editing, preview or review. EE: This is selected for monitoring using the audio output of the recorder VTR. LINE: This is selected when the audio output signals of the recorder VTR are to be supplied to the audio mixer and monitored using the line output of the audio mixer. PVW: This is selected when the audio output signals of the recorder VTR are to be supplied to the audio mixer, and the signals are to be selected using the preview bus of the audio mixer. **Note:** When LINE or PVW is selected, the V, A1 and A2 buttons in the editing mode setting area will not work during preview.
		01	LINE	
		02	PVW	

[ ] denotes the default (factory) setting.

PVW mode settings and operation

The operations of the video switcher and audio mixer during automatic editing, preview and review are shown below.

Video switcher (PGM bus) operations

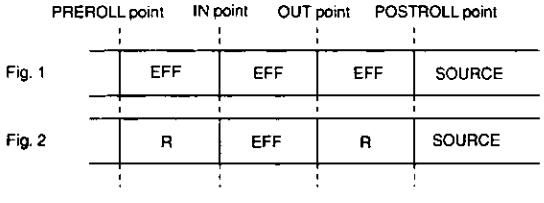
	EE	FULL
Preview	Fig. 1	Fig. 2
Automatic editing	Fig. 1	Fig. 2
Review	Fig. 3	Fig. 3

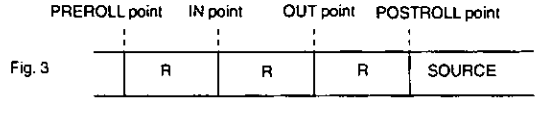
Audio mixer (line output bus) operations

	EE/PVW	LINE
Preview	Fig. 1	Fig. 2
Automatic editing	Fig. 1	Fig. 2
Review	Fig. 3	Fig. 3

Audio mixer (preview bus) operations

	EE/LINE	PVW
Preview	No control	Fig. 2
Automatic editing	No control	Fig. 2
Review	No control	Fig. 3





EFF: FROM or TO SOURCE
R: Recorder
SOURCE: Source assigned by VTR source selection area

GPI set-up (GPI control)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
04 1-01	GPI1 REF	[00]	[UNDEFINED]	This sets the reference point of the timing at which the trigger signal is to be output to the GPI1 connector. The GPI1 setting in each event takes priority. UNDEFINED: The trigger signal is not output. REC IN: Recorder IN point REC OUT: Recorder OUT point EFFECT: Start point of switcher's effect REC TALLY: During editing, the signal is output between the recorder IN and OUT points (while recording is underway). SRC SELECT: This is output when P1 has been selected as the source VTR.
		01	REC IN	
		02	REC OUT	
		03	EFFECT	
		04	REC TALLY	
		05	SRC SELECT	
04 1-02	GPI1 TIMING	[00:00]	~±59:29 (NTSC) [00:00] ~±59:24 (PAL)	This sets the timing at which the trigger signal is to be output to the GPI1 connector as a relative time from the reference point. If +10 is set, the trigger signal will be output 10 frames after the reference point; if −200 is set, it is output two seconds before the reference point. Only the IN point is set when REC TALLY has been set for the GPI1 REF item. ("d" appears on the recorder's time display unit with a "+" setting and "A" with a "−" setting.)
04 1-03	GPI2 REF	[00]	[UNDEFINED]	This sets the reference point of the timing at which the trigger signal is to be output to the GPI2 connector. UNDEFINED: The trigger signal is not output. REC IN: Recorder IN point REC OUT: Recorder OUT point EFFECT: Start point of switcher's effect REC TALLY: During editing, the signal is output between the recorder IN and OUT points (while recording is underway). SRC SELECT: This is output when P1 has been selected as the source VTR.
		01	REC IN	
		02	REC OUT	
		03	EFFECT	
		04	REC TALLY	
		05	SRC SELECT	
04 1-04	GPI2 TIMING	[00:00]	~±59:29 (NTSC) [00:00] ~±59:24 (PAL)	This sets the timing at which the trigger signal is to be output to the GPI2 connector as a relative time from the reference point. If +10 is set, the trigger signal will be output 10 frames after the reference point; if −200 is set, it is output two seconds before the reference point. Only the IN point is set when REC TALLY has been set for the GPI2 REF item. ("d" appears on the recorder's time display unit with a "+" setting and "A" with a "−" setting.)

Search dial set-up (DIAL CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
05 1-01	SHTL FWD SPEED	00	×16	This sets the maximum speed in the forward direction in the SHTL mode. ×16: The maximum speed is set to 16 times the normal tape speed. ×32: The maximum speed is set to 32 times the normal tape speed. ×60: The maximum speed is set to 60 times the normal tape speed. ×100: The maximum speed is set to 100 times the normal tape speed. FF: The maximum speed is set to the fast forwarding speed. **Note:** The VTR's functions may place restrictions on the actual speed.
		[01]	[×32]	
		02	×60	
		03	×100	
		04	FF	
05 1-02	SHTL REV SPEED	00	×16	This sets the maximum speed in the reverse direction in the SHTL mode. ×16: The maximum speed is set to 16 times the normal tape speed. ×32: The maximum speed is set to 32 times the normal tape speed. ×60: The maximum speed is set to 60 times the normal tape speed. ×100: The maximum speed is set to 100 times the normal tape speed. REW: The maximum speed is set to the rewinding speed. **Note:** The VTR's functions may place restrictions on the actual speed.
		[01]	[×32]	
		02	×60	
		03	×100	
		04	REW	

[ ] denotes the default (factory) setting.

Search Dial and Screen Display SET UP

Search dial set-up (DIAL CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
05 1-03	JOG FWD SPEED	[00]	[×1]	This sets the maximum speed in the forward direction in the JOG mode. ×1: The maximum speed is set to the normal tape speed. ×2: The maximum speed is set to 2 times the normal tape speed. ×3: The maximum speed is set to 3 times the normal tape speed.
		01	×2	
		02	×3	
05 1-04	JOG REV SPEED	[00]	[×1]	This sets the maximum speed in the reverse direction in the JOG mode. ×1: The maximum speed is set to the normal tape speed. ×2: The maximum speed is set to 2 times the normal tape speed. ×3: The maximum speed is set to 3 times the normal tape speed.
		01	×2	
		02	×3	

Screen display set-up (DISPLAY CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
06 1-01	COLOR	[00]	[BLACK]	This sets the background color of the monitor screen on which the status and other information is to be displayed. BLACK: This selects black as the screen's background color. BLUE: This selects blue as the screen's background color.
		01	BLUE	
06 1-02	H-POSITION	00	00	This sets the position in the horizontal direction where the status and other information is to be displayed. The higher the number selected, the further toward the right of the screen the characters are moved.
		01	01	
		[02]	[02]	
		03	03	
		04	04	
		05	05	
		06	06	
06 1-03	V-POSITION	00	00	This sets the position in the vertical direction where the status and other information is to be displayed. The higher the number selected, the further toward the bottom of the screen the characters are moved.
		01	01	
		[02]	[02]	
		03	03	
		04	04	
		05	05	
		06	06	
06 1-04	SCAN	[00]	[NON INTERLACE]	This sets the display mode of the monitor screen on which the status and other information is to be displayed. NON INTERLACE: Display without interlacing Although these are not standard TV signals, the flickering of the characters can be eliminated. Interference may appear depending on the type of monitor used, in which case set this item to INTERLACE. INTERLACE: Display with interlacing
		01	INTERLACE	
06 1-05	DFLT MODE	00	AUTO	This item is used to set what is to be displayed on the monitor screen when the power is switched on. AUTO: During editing, the video signals supplied to the MON IN connector are output; at all other times, the status is displayed. STATUS: The VTR status, edit IN and OUT points, and DUR are displayed. EDIT DATA: The edit IN and OUT points and DUR settings are displayed all the time. MON IN: The video signals supplied to the MON IN connector are output.
		[01]	[STATUS]	
		02	EDIT DATA	
		03	MON IN	

[ ] denotes the default (factory) setting.

System expansion set-up (ENH SYSTEM CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
11 1-01	TV SYSTEM	[00]	[NTSC]	This selects the signal standard of the system in which the VTRs and other devices are connected. NTSC: This selects the NTSC standard (30 frames). PAL: This selects the PAL/SECAM standard (25 frames). **Note:** When the system's signal system has been changed, initialize the EDL memory (see page 43), and then set the SET UP and CONFIG mode items again. [SET UP mode] •SYSTEM CONTROL—COLOR FRAMING SHOW START •GPI CONTROL—GPI1 TIMING GPI2 TIMING •VTR CONSTANT—PREROLL TIME CF LOCK MODE [CONFIG MODE] •CF PHASE
		01	PAL	
11 1-02	EDIT RETRY	00	OFF	This sets the operation which is performed when synchronization is not possible with the editing accuracy set by SYNC GRADE. OFF: Editing is suspended. ON: Editing is repeated. If 3 attempts have failed, editing is suspended.
		[01]	[ON]	
11 1-03	COPY ORIGINAL TC	[00]	[OFF]	This item is set to ON when the time code of the original tape is to be recorded as is. When this function is to be used, connect the TC OUT connector on the source VTR to the TC IN connector on the recorder VTR, and set TC INT/EXT SELECT for the recorder VTR to EXT (external input). The recorder VTR is used at the CTL setting.
		01	ON	
11 1-04	REACTION TIME	00~[03]~63		This compensates in frame increments for the delay in operation which occurs when the MARK IN or MARK OUT button is pressed while the tape playback pictures (PLAY) are being viewed.
11 1-05	DVE DELAY	[00]~03		This item sets the delay amount in frame increments when video signals are to be delayed by the DVE or video switcher.
11 1-06	AUTO DUMP EDL	[00]	[OFF]	This item sets whether the edit data is to be output to the external device from the RS-232C connector when editing has been performed or data has been changed. OFF: The edit data is not output automatically. EDIT: The executed edit data is output each time automatic editing has been performed. EDIT/FS: The edit data is output when automatic editing has been performed or when data has been changed and the CORCT and FS buttons are pressed. **Note:** The END OF FILE code is not output when edit data has been output automatically.
		01	EDIT	
		02	EDIT/FS	
11 1-07	SPECIAL SLOW EDIT	[00]	[OFF]	This sets the operation during slow-motion editing. OFF: The same slow-motion editing operation as that provided in the past are performed. No guarantee is made for the editing accuracy. ON: The tape in the player VTR is played at the standard speed as far as the edit IN point, and slow-motion playback commences several frames after the edit IN point. Compared with the slow-motion editing performed in the past, a higher editing accuracy is achieved.
		01	ON	

[ ] denotes the default (factory) setting.

VTR expansion set-up (VTR CONSTANT)

Any data from "00" to "FF" can be set for these items. Normally, the VTR model is automatically identified and optimally controlled according to its device type so that there is no need to change the settings. Press the SHIFT +1 to SHIFT +6 buttons to input the letters A to F. The third digit in the item number varies depending on the port which is set.

Port A: 121-xx; Port B: 122-xx; Port C: 123-xx
Port D: 124-xx; Port E: 125-xx; Port F: 126-xx

*When separate settings need to be used, please contact our service personel.

Item		Setting	Description of function
No.	Screen display		
12 x-01	DEVICE TYPE	00 00~FF FF	Normally, VTR models are automatically identified so that there is no need to change their setting from "FF FF." With VTRs which cannot be automatically identified, "FF FE" must be set separately, and the VTR CONSTANT DATA for PREROLL TIME to MODEL must be set.
12 x-02	PREROLL TIME	00:00~05:00~59:29 (NTSC) 00:00~05:00~59:24 (PAL)	This sets the minimum possible preroll time (seconds+frames) required by the VTR. It takes precedence even when a preroll time shorter than this setting has been set in PREROLL TIME among the SYSTEM CONTROL items.
12 x-03	EDIT DELAY	00~06~99	This sets in frame units the edit timing (delay until the VTR actually starts recording after the EDIT ON/OFF command has been sent).
12 x-04	EE DELAY	00~06~99	This sets in frame units the EE timing (delay until the VTR actually starts performing the EE operation after the FULL or SELECT EE ON/OFF command has been sent).
12 x-05	TC READ DELAY	00~03~99	This sets in frame units the number of frames for which the time code continuity is to be maintained during synchronization for the data to be treated as definite data.
12 x-06	START DELAY	00~05~99	This sets in frame units the delay time after the PLAY command has been acknowledged until the VTR operates when the VTR is in the STOP mode.
12 x-07	A SYNC DELAY –	00~99	This sets in frame units the timing at which the PLAY mode is to be restored after the VTR's tape speed has been reduced and the time code has matched during synchronization.
12 x-08	A SYNC DELAY +	00~03~99	This sets in frame units the timing at which the PLAY mode is to be restored after the VTR's tape speed has been increased and the time code has matched during synchronization.

DEVICE TYPE setting	
When a VTR is automatically identified	"FF FF"
When the same control as for a specific VTR is to be exercised (dummy setting)	VTR ID for specific VTR
When the VTR CONSTANT DATA is to be set separately (separate setting)	"FF FE"

denotes the default (factory) setting.

VTR expansion set-up (VTR CONSTANT)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
12 x-09	CF LOCK MODE	00 [01] 02	2FIELD [4FIELD] 8FIELD (NTSC mode)	This sets the maximum framing which is supported as the VTR function. 2FIELD: 2-field lock [NTSC]: S-VHS; [PAL]: AG-7700, AG-7600, etc. 4FIELD: 4-field lock [NTSC]: DVC-PRO, D3, D5, MII; [PAL]: S-VHS, etc. 8FIELD: 8-field lock [NTSC]: None; [PAL]: DVC-PRO, D3, D5, MII, etc. [Reference] Color framing editing is controlled by the setting selected here and by the COLOR FRAMING setting among the SYSTEM CONTROL setting items.
		00 01 [02]	2FIELD 4FIELD [8FIELD] (PAL mode)	
12 x-10	CF LOCK STSTUS	00 [01]	VOID [VALID]	This sets whether or not the CF status from the VTR is recognized. VOID: The CF status is not recognized. VALID: The CF status is recognized.
12 x-11	SERVO DELAY	[00]~99		This sets the synchronization start timing in frame unit. When "00" is set, synchronization is commenced after servo lock. Normally, the "00" setting is used.
12 x-12	MAX CUE-UP SPD	00 [01]	SHTL [FF/REW]	This sets the maximum speed in a GO TO, PREROLL or other cue-up operation. SHTL: The maximum shuttle speed is used. FF/REW: The FF/REW speed is used.
12 x-13	SELF CUE-UP TIME	00 01 02 03 04 05 [06] 07	30 s 40 s 50 s 1 m 2 m 3 m [5 m] 10 m	This sets the range for conducting VTR self-cue-up (cueing up based on CUE-UP WITH DATA) in second [s] or minute [m] units. The AG-A850 performs cue-up when the time exceeds the range setting.
12 x-14	CUE-UP CHECK 1	[1]~7		The GO TO, PREROLL or other cue-up operation is performed when the target value exceeds the number of frames which have been set here.
12 x-15	CUE-UP CHECK 2	00 [01]	STS [STS/TM]	This sets the cue-up completion condition. STS: The condition is determined only by the status from the VTR. STS/TM: The condition is determined by the status from the VTR and time.
12 x-16	STILL CHECK	[1]~7		This sets in percentage points the minimum speed at which the VTR is considered to be in the STILL mode during slow-motion editing.
12 x-17	SHTL LOW SPEED	[00] 01	[SHTL] VAR	This sets the command to be used when the search dial is to be operated in the SHTL mode. SHTL: The SHTL command is used. Normally, this setting is used. VAR: The SHTL command is used at high speeds, and the VAR command is used at low speeds. This setting is used for a D3 or D5 VTR.

[ ] denotes the default (factory) setting.

VTR expansion set-up (VTR CONSTANT)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
12 x-18	HEAD SELECT R-VTR	00 01 [02]	NO PB [R/P]	This sets the HEAD SELECT command which is output to the recorder VTR during editing. NO: The HEAD SELECT command is not output. PB: The playback head is selected. R/P: The record/playback head is selected. Normally, this setting is used.
12 x-19	HEAD SELECT P-VTR	00 [01]	NO [PB]	This sets the HEAD SELECT command which is to be output to the player VTR during editing. NO: The HEAD SELECT command is not output. PB: The playback head is selected. Normally, this setting is used.
12 x-20	EDIT PRESET COM	00 [01]	1BYTE [2BYTE]	This sets the number of bytes for the EDIT PRESET command data. 1BYTE: 1-byte data is used. This setting is used for a VTR with two audio track channels. 2BYTE: 2-byte data is used. This setting is used for a DVCPRO or VTR with four audio track channels.
12 x-21	MODEL	[00] 01 02	[VTR] LQ-4100 LQ-D5500	This sets the control inherent to the connected model. VTR: Normally, this setting is used. LQ-4100: Control inherent to the LQ-4100 is exercised. LQ-D5500: Control inherent to the LQ-D5500 is exercised.
12 x-22	MODE	[00]~FF		This sets the TC SOURCE default value when the backup memory settings have been lost. (Refer to "CONFIG mode" on page 67.) Normally, the "00" setting is selected. 00: LTC/VITC 01: LTC 02: VITC
12 x-23	CUE CNTRL (ASMBL)	[00] 01	[OFF] ON	This sets whether to enable the recording of the cue audio track for each editing mode during editing. When a multiple number of editing modes have been selected, cue audio recording is performed provided that the editing modes set ON here are included among them. ON: Cue audio recording is performed when the editing mode concerned has been selected. OFF: Cue audio recording is not performed when the editing mode concerned has been selected. [Setting examples] ●When audio recording has been performed by the AJ-D750, set as follows to perform cue audio recording as well. ASMBL, A1, A2: ON V, A3, A4: OFF ●Set as follows when selecting cue audio recording separately by the AJ-D750. ASMBL, Ad3: ON V, A1, A2, A4: OFF (Use the [A3] button for the cue audio selection.) **Note:** The settings established here are valid only with a VTR (DVCPRO, D3, D5, etc.) which has the cue audio track and which enables the 2-byte EDIT PRESET command to be used. Set EDIT PRESET COM to 2BYTE when DEVICE TYPE has been set separately.
12 x-24	CUE CNTRL (V)			
12 x-25	CUE CNTRL (A1)			
12 x-26	CUE CNTRL (A2)			
12 x-27	CUE CNTRL (A3)			
12 x-28	CUE CNTRL (A4)			

[ ] denotes the default (factory) setting.

Switcher/mixer expansion set-up (SW'ER/MIXER PROTOCOL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
13 1-01	SW'ER PROTOCOL MODE	**00**	**AUTO**	AUTO: This sets the communications protocol for controlling the video switcher to the standard settings. MANUAL: The SW'ER PROTOCOL DATA after BAUDRATE is made valid.
		01	MANUAL	
13 1-02	SW'ER PROTOCOL BAUDRATE	**00**	**38400**	This sets the transmission rate (bps) for video switcher control.
		01	19200	
		02	9600	
		03	4800	
		04	2400	
		05	1200	
13 1-03	SW'ER PROTOCOL CHAR. LENGTH	**00**	**8 bit**	This sets the data length for video switcher control.
		01	7 bit	
13 1-04	SW'ER PROTOCOL STOP BIT	00	2 bit	This sets the stop bit length for video switcher control.
		01	**1 bit**	
13 1-05	SW'ER PROTOCOL PARITY	00	NONE	This sets the parity check for video switcher control.
		01	EVEN	
		02	**ODD**	
13 2-01	MIXER PROTOCOL MODE	**00**	**AUTO**	AUTO: This sets the communications protocol for audio mixer control to the standard settings. MANUAL: The MIXER PROTOCOL DATA after BAUDRATE is made valid.
		01	MANUAL	
13 2-02	MIXER PROTOCOL BAUDRATE	**00**	**38400**	This sets the transmission rate (bps) for audio mixer control.
		01	19200	
		02	9600	
		03	4800	
		04	2400	
		05	1200	
13 2-03	MIXER PROTOCOL CHAR. LENGTH	**00**	**8 bit**	This sets the data length for audio mixer control.
		01	7 bit	
13 2-04	MIXER PROTOCOL STOP BIT	00	2 bit	This sets the stop bit length for audio mixer control.
		01	**1 bit**	
13 2-05	MIXER PROTOCOL PARITY	00	NONE	This sets the parity check for audio mixer control.
		01	**EVEN**	
		02	ODD	

xxx denotes the default (factory) setting.

RS-232C expansion set-up (RS-232C PROTOCOL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
14 0-01	BAUDRATE	00 01 [02] 03 04 05	38400 19200 [9600] 4800 2400 1200	This sets the transmission rate (bps) for EDL data communication.
14 0-02	CHAR. LENGTH	[00] 01	[8 bit] 7 bit	This sets the data length for EDL data communication. **Note:** Reception is not possible using the 7-bit setting.
14 0-03	STOP BIT	00 [01]	2 bit [1 bit]	This sets the stop bit length for EDL data communication.
14 0-04	PARITY	00 01 [02]	NONE EVEN [ODD]	This sets the parity check for EDL data communication.
14 1-05	FLOW CONTROL	[00] 01	[NONE] RTS/CTS	This enables or disables the flow control for EDL data communication.
14 1-06	TX TIME OUT	[00] 01	[OFF] ON	When this item is set to ON, communication is forcibly terminated unless the external device is set to the receive status within 5 seconds when EDL data is to be sent. When it is set to OFF, time-out processing is not performed. The item is valid only when RTS/CTS has been selected for FLOW CONTROL.
14 1-07	RX TIME OUT	[00] 01	[OFF] ON	When this item is set to ON, communication is forcibly terminated unless the data is sent from the external device within 5 seconds when EDL data is to be received. When it is set to OFF, time-out processing is not performed.

[ ] denotes the default (factory) setting.

GPI and Buzzer Expansion SET UP

GPI expansion set-up (ENH. GPI CONTROL)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
15 0-01	GPI1 CONTROL LOGIC	[00]	[NEGATIVE]	This sets the output signal polarity of the GPI1 connector. NEGATIVE: High level during standby; low level during operation POSITIVE: Low level during standby; high level during operation
		01	POSITIVE	
15 0-02	GPI1 CONTROL PULSE WIDTH	00~[03]~63		This sets the output pulse width (as a number of frames) of the GPI1 connector.
15 0-03	GPI1 CONTROL START FIELD	[00]	[FIRST]	This sets the output start field of the GPI1 connector. FIRST: Output starts from the first field. SECOND: Output starts from the second field.
		01	SECOND	
15 0-04	GPI1 CONTROL START TIMING	[01]~63		This sets the time (as a number of frames) until the device connected to the GPI1 connector starts operating after the trigger signal has been received.
15 0-05	GPI2 CONTROL LOGIC	[00]	[NEGATIVE]	This sets the output signal polarity of the GPI2 connector. NEGATIVE: High level during standby; low level during operation POSITIVE: Low level during standby; high level during operation
		01	POSITIVE	
15 0-06	GPI2 CONTROL PULSE WIDTH	00~[03]~63		This sets the output pulse width (as a number of frames) of the GPI2 connector.
15 0-07	GPI2 CONTROL START FIELD	[00]	[FIRST]	This sets the output start field of the GPI2 connector. FIRST: Output starts from the first field. SECOND: Output starts from the second field.
		01	SECOND	
15 0-08	GPI2 CONTROL START TIMING	[01]~63		This sets the time (as a number of frames) until the device connected to the GPI2 connector starts operating after the trigger signal has been received.

Buzzer expansion set-up (BUZZER)

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
16 0-01	EDIT IN/OUT	00	OFF	This selects whether the buzzer is to be sounded at the IN and OUT points during automatic editing, preview or review operation.
		[01]	[ON]	
16 0-02	MARK IN/OUT	00	OFF	This selects whether the buzzer is to be sounded when the MARK IN/OUT or other MARK button has been pressed.
		[01]	[ON]	
16 0-03	WARNING	00	OFF	This selects whether the buzzer is to be sounded when a warning has occurred.
		[01]	[ON]	
16 0-04	ERROR	00	OFF	This selects whether the buzzer is to be sounded when an error has occurred.
		[01]	[ON]	

[ ] denotes the default (factory) setting.

CONFIG mode

The first digit in the item number differs depending on the VTR.
P1:P1-1 P2:P2-1 P3:P3-1 P4:P4-1 R:r -1

Item		Setting		Description of function
No.	Screen display	No.	Screen display	
X-01	TC SOURCE	00 01 [02]	LTC VITC [LTC/VITC]	This selects which type of time code is to be used for the VTR's time display. LTC: LTC is used. VITC: VITC is used. LTC/VITC: LTC or VITC is automatically selected and used in accordance with the tape speed.
X-02	CF PHASE	[01] 02 (NTSC mode)	[A] B	This item compensates for the color frame phase difference between the video signal and time code. When COLOR FRAMING for SET UP is ON and TIME CODE is set for CF REF, editing is performed referencing this setting. (NTSC mode) A: No compensation is provided. Frame A of the video signal and an even-numbered frame of the time code are locked. B: Compensation of 180 degrees is provided. Frame B of the video signal and an even-numbered frame of the time code are locked. (PAL mode) 1: No compensation is provided. The video signal and time code are locked in compliance with the EBU standard. 2: Compensation is provided. The second frame of the video signal is locked to the time code as the first frame. 3: Compensation is provided. The third frame of the video signal is locked to the time code as the first frame. 4: Compensation is provided. The fourth frame of the video signal is locked to the time code as the first frame. **Note:** The color frame phase difference cannot be specified for tapes recorded using the VHS (PAL) system. For this reason, do not set CF REF to TIME CODE.
		[01] 02 03 04 (PAL mode)	[1] 2 3 4	

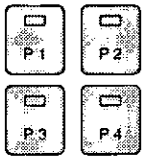
[ ] denotes the default (factory) setting.

Table of Key Functions

Special key

1. **SHIFT**
   To use the function indicated at the bottom (or in the center with the number buttons) of a button, operate the button while holding down the SHIFT button.

VTR/source selector keys



1. **P1, P2, P3, P4**
   Each of these keys selects a VTR which is to be controlled at the player control unit. When the R button lamp has lighted, the player VTR selected before the R button is pressed can be controlled at the player control unit. When edit data is set and controlled using the IN, OUT, DUR, FROM, TO, SPLIT, SPEED, GPI and GOTO buttons, the settings and control apply to the VTRs selected using these buttons.
2. **SHIFT+P1, P2, P3, P4**
   These combinations of keys select auxiliary sources (AUX) 1 to 4. When edit data is set using the IN, OUT, DUR, FROM, TO, SPLIT and GPI buttons, the settings apply to the auxiliary sources selected using these buttons.

1. **R**
   This is selected when the recorder VTR is to be made subject to the edit data settings and control exercised by the IN, OUT, DUR, SPLIT, GPI and GOTO buttons.

VTR control keys

1. **REC**
   The recorder VTR is set to the EE mode while this key is held down. The input video and audio signals are output to the monitor which is connected to the recorder VTR. The VTR may not be set to the EE mode depending on the model used, its settings and still-picture or play status.
2. **REC+PLAY**
   When the PLAY button in the recorder control unit is pressed while REC is held down, the recorder VTR starts recording manually and the REC button lamp lights. When the PLAY button in the player control unit is pressed, the player VTR selected by the VTR/source selector key starts recording.
3. **ENTER+REC+PLAY**
   When the PLAY button in the player control unit is pressed while the ENTER and REC buttons are held down, the player VTR selected by the VTR/source selector key starts recording, and the REC button lamp lights.

1. **PLAY**
   This plays the tape in the selected VTR. During play, the button's lamp lights.
2. **STB OFF (SHIFT+PLAY)**
   The standby off mode is established when PLAY button is pressed while the selected VTR in the stop mode. Some VTR models may be placed in the standby off mode if this is preessed even when they are not in the stop mode. The PLAY button's lamp flashes.

1. **STILL**
   This temporarily stops the tape in the selected VTR. The STILL button's lamp lights.
2. **STOP (SHIFT+STILL)**
   This stops the tape in the selected VTR. The STILL button's lamp flashes.

1. **REW**
   This rewinds the tape in the selected VTR. The REW button's lamp lights.
2. **EJECT (SHIFT+REW)**
   This ejects the tape in the selected VTR. The REW button's lamp lights.
3. **ALL REW (ENTER+REW)**
   The tapes in all the VTRs are rewound. The REW button's lamp lights.

1. **FF**
   This fast forwards the tape in the selected VTR. The FF button's lamp lights.
2. **VAR/SHTL (SHIFT+FF)**
   This sets the selected VTR to the VAR mode when it is in the SHTL mode; when it is pressed again, it returns the VTR to the SHTL mode. (Player operation unit only)
3. **ALL EJECT (ENTER+FF)**
   When the FF button in the recorder operation unit is pressed while the ENTER button is held down, the tapes in all the VTRs are ejected.

1. **MARK IN**
   This reads the time code of the selected VTR and sets the edit IN point.
2. **MARK IN SPLIT (SHIFT+MARK IN)**
   This reads the time code of the selected VTR and sets the audio IN point in audio split editing.

1. **MARK OUT**
   This reads the time code of the selected VTR and sets the edit OUT point.
2. **MARK OUT SPLIT (SHIFT+MARK OUT)**
   The time code of the selected VTR is read, and the audio OUT point for audio split editing is set.

Table of Key Functions

Editing mode setting keys

1. **ASMBL**
   This is pressed for assemble editing. Its lamp now lights. When it is pressed again, the lamp goes off, and the assemble editing is released. When insert editing has already been set, release the selected mode before pressing this button.
2. **1st ED (SHIFT+ASMBL)**
   Press this button when using the first edit function. Its lamp now flashes. Press the button again to release the function.

1. **V**
   This selects the video signals during insert editing. These signals can be selected in addition to the A1, A2, A3 and A4 settings but when assemble editing or TC insert editing has been set, release the selected mode before pressing this button.
2. **TC (SHIFT+V)**
   Press this button for time code (LTC) insert recording. Its lamp now lights. When assemble editing or other type of insert editing has been set, release the selected mode before pressing this button.

1. **A1**
   This selects the audio channel 1 signals during insert editing. These signals can be selected in addition to the V, A2, A3 and A4 settings but when assemble editing or TC insert editing has been set, release the selected mode before pressing this button.
2. **A3 (SHIFT+A1)**
   This selects the audio channel 3 signals during insert editing. These signals can be selected in addition to the V, A1, A2 and A4 settings but when assemble editing or TC insert editing has been set, release the selected mode before pressing this button.

1. **A2**
   This selects the audio channel 2 signals during insert editing. These signals can be selected in addition to the V, A1, A3 and A4 settings but when assemble editing or TC insert editing has been set, release the selected mode before pressing this button.
2. **A4 (SHIFT+A2)**
   This selects the audio channel 4 signals during insert editing. These signals can be selected in addition to the V, A1, A2 and A3 settings but when assemble editing or TC insert editing has been set, release the selected mode before pressing this button.

[Reference 1]
In a VHS (or S-VHS) format VTR, audio channel 2 can be used as the time code (LTC) track. When this channel is used for the time code, the audio channel 2 signals cannot be insert edited.
[Reference 2]
Audio channel 3 and 4 insert editing is enabled when a VTR in the D3, D5 or other format with four channels for the audio tracks is used as the recorder VTR.

Automatic editing function keys

1. **GO TO**
   When the edit IN point has been set, this searches the position of the IN point on the tape.
2. **GO TO OUT (SHIFT+GO TO)**
   When the edit OUT point has been set, this searches the position of the OUT point on the tape.
3. **PREROLL (ENTER+GO TO)**
   When the edit IN point has been set, this cues up the tape to the preroll position.
   This is set automatically when the recorder's edit IN point is not available.
4. **Time→GO TO**
   The number keys are used to input the time code of the position to be searched, and the GO TO button is pressed.

1. **PREVIEW**
   Press this to rehearse the editing. The edit data must have been entered, and it must be possible for the VTR to be controlled.
2. **REVIEW (SHIFT+PREVIEW)**
   Press this to check the edit results. When the displayed event is not a new event, that event is reviewed; if it is a new event, the previous event is reviewed.
3. **SYNC PREVIEW (ENTER+PREVIEW)**
   Press this to rehearse the editing. During the rehearsal, the tape signals always serve as the recorder VTR output, and the external input is never selected.

Table of Key Functions

1. **AUTO EDIT/END**
   Press this for the automatic editing of the displayed event only. The edit data must have been entered, and it must be possible for the VTR to be controlled. If this button is pressed during automatic editing without the edit OUT point having been set, the point where the button is pressed is automatically set as the edit OUT point, and editing is ended. When performing automatic editing with a new event, the editing is automatically shifted to the next event.
2. **PROGRAM EDIT (SHIFT+AUTO EDIT/END)**
   Press this for the continuous automatic editing of events starting with the displayed event. A new event is not edited.

1. **ALL STOP**
   This stops all the VTRs. If it is pressed during editing (PREVIEW, EDIT, REVIEW or GOTO) or during communication (DUMP or LOAD), the operation concerned will be suspended.

Edit point setting keys

1. **IN**
   This displays the edit IN point while it is pressed.
2. **Time→IN**
   The edit IN point is set by inputting the time code using the number keys and pressing the IN button.
3. **IN→Time→ENTER**
   The edit IN point is set by first pressing the IN button and then inputting the time code using the number keys and pressing the ENTER button.
4. **IN→C→ENTER**
   This clears the edit IN point.
5. **LAST X (SHIFT+IN)**
   Press this to restore the edit point to the setting prior to the revised setting.

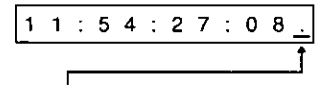
1. **OUT**
   This displays the edit OUT point while it is pressed.
2. **Time→OUT**
   The edit OUT point is set by inputting the time code using the number keys and pressing the OUT button.
3. **OUT→Time→ENTER**
   The edit OUT point is set by first pressing the OUT button and then inputting the time code using the number keys and pressing the ENTER button.
4. **OUT→C→ENTER**
   This clears the edit OUT point.
5. **LAST ED (SHIFT+OUT)**
   Press this to restore the edit data to the status when it was last preview-edited.

1. **DUR**
   This displays the duration while it is pressed.
2. **Time→DUR**
   The duration is set by inputting the time code using the number keys and pressing the DUR button.
3. **DUR→Time→ENTER**
   The duration is set by first pressing the DUR button and then inputting the time code using the number keys and pressing the ENTER button.
4. **DUR→C→ENTER**
   This clears the duration.
5. **TOTAL (SHIFT+DUR)**
   This displays the total editing time on the recorder time display unit. Normally (when SHOW START of SET UP has not been entered), the recorder IN point in the edit data set in the first event of the EDL memory is calculated as the start time. It is also possible to set the start time with SHOW START of SET UP.
6. **LAP (ENTER+DUR)**
   The lap time is displayed while this key is held down.

[Reference 1]
The time codes of the edit points can be input using any of the following methods.

1. Input the time code in frame units. Press the F/TC button to display "F"
2. Clear the time code which has been input. Press the C button.
3. Increase or reduce the set time code. To increase the time code, press the "+" button and input the number by which the time code is to be increased; to reduce the time code, press the "−" button and input the number by which the time code is to be reduced. When the "+" button is pressed, the SERVO lamp flashes; when the "−" button is pressed, the TC lamp flashes.

[Reference 2]
Concerning the "." which appears on the right of the time code when the edit data is displayed.



- No period displayed:
  Edit point which has been set by MARK IN or IN.
- Lighted ".":
  Time code automatically calculated from another edit point.
- Flashing ".":
  Time code controlled by the time track.

Editing mode setting keys

1. **EVENT→event number→ENTER**
   Press these keys to call an already entered event number. First press the EVENT button, then input the number of the event to be called, and finally press the ENTER button.

2. **EVENT→+→ENTER**
   This sequence calls a new event.

3. **EVENT→−→ENTER**
   This sequence calls the first event.

4. **EVENT→9→9→9→9→SHIFT+ENTER**
   This clears the edit data in all the events.

5. **CHANGE EDL (ENTER+EVENT)**
   This switches between the two EDL lists for which the editing operations are to be performed when "256×2" has been selected for MULT EDL in SET UP.

1. **TRANS**
   While this is pressed during A/B roll editing, the transition time appears on the center display unit. The first two digits indicate the seconds; the last two digits indicate the frames.

   3 . 1 0
   Seconds Frames

2. **TRANS→time→ENTER**
   To set the transition time during A/B roll editing, first press the TRANS button, then input the time code, and finally press the ENTER button. When the time is to be input in frame units, press the F/TC button to display "F".

3. **TRANS→C→ENTER**
   This sequence sets the transition time during A/B roll editing to 1 sec.

4. **FROM (SHIFT+TRANS)→source**
   To select the cut edit source or FROM source for A/B roll editing, first press the FROM button, and then press the VTR/source selector key (P1–P4, AUX1–AUX4).

5. **AUDIO TRANS (ENTER+TRANS)**
   This is used when displaying or setting the audio transition time independently. The setting method is the same as for TRANS. The key works only when an audio mixer has been connected.

1. **PATTRN**
   While this button is pressed during A/B roll editing, the pattern number is displayed on the center display unit. When the dissolve has been set as the effect, "0" is displayed; when wipe has been set, a number other than "0" is displayed. "." appears on the right of the pattern number to indicate a reverse pattern.

   1 5 0 .

2. **PATTRN→pattern number→ENTER**
   To set a pattern number during A/B roll editing, first press the PATTRN button, then input the pattern number, and finally press the ENTER key. To set a reverse pattern, press the "−" button so that "." is displayed on the right of the pattern number.

3. **PATTRN→C→ENTER**
   This sets dissolve as the effect during A/B roll editing.

4. **TO (SHIFT+PATTRN)→source**
   To select the TO source for A/B roll editing, first press the TO pattern, and press the VTR/source selector key (P1–P4, AUX1–AUX4).

[Reference] FROM source, TO source
For cut editing, the source VTR can be selected using VTR/SOURCE selector key. For A/B roll editing, the source whose edit points were set first is set as the FROM source, and the source whose edit point was set next is set as the TO source. The FROM or TO button is used to fix or change the source before the edit points are entered.

1. **A/B**
   Press this for A/B roll editing. The button's lamp now lights. The cut editing mode is established when it is pressed again and its lamp is turned off. To switch over the FROM and TO sources, press the A/B button twice.

2. **SYNC (SHIFT+A/B)**
   Press this for sync roll editing. The button's lamp now flashes.

1. **SPLIT**
   While this is pressed, the audio split is displayed. When audio split is set, the edit IN point serves as the video IN point, and editing is performed with the audio IN point shifted.

2. **SPLIT→time→ENTER**
   This sequence sets the audio IN point by means of the time code for audio split editing.

3. **SPLIT→+→relative time amount→ ENTER**
   This sequence sets the split amount for editing with the audio IN point shifted back from the video IN point.

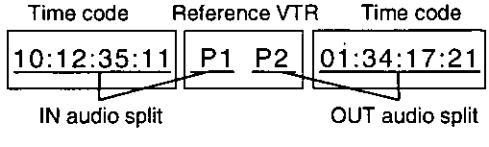
4. **SPLIT→−→relative time amount→ ENTER**
   This sequence sets the split amount for editing with the audio IN point shifted ahead of the video IN point.

5. **SPLIT→C→ENTER**
   This clears the audio split editing.

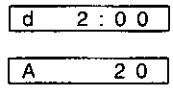
6. **OUT SPLIT (SHIFT+SPLIT)**
   This is used when displaying and setting the OUT audio split. The setting method is the same as for SPLIT.

[Reference 1] The displays with split editing depend on the set status and are as follows.

- 8-digit time code indicated on recorder time display unit The recorder VTR's time code is used for the setting. Even if the edit IN point is changed, the split amount changes and the audio IN point remains the same.
- **8-digit time code display**
  The VTR's time code is used to set this. The VTR used as the reference is indicated on the center display unit. Even if the edit points are changed, the split amount changes and the audio edit points remain the same.



- **"A" or "d" and time codes with up to 4 digits displayed**
  The split amount has been set with an edit point used as a reference. When an edit point is changed, the split amount remains the same and the audio edit points also change.



The audio IN (OUT) point is delayed by 2 seconds.
The audio IN (OUT) point is advanced by 20 frames.

[Reference 2] The split amount ranging from +59 sec. and 29 frames to −59 sec. and 29 frames for NTSC (or +59 sec. and 24 frames to −59 sec. and 24 frames for PAL) can be set.

1. **SPEED**
   When this is pressed with one of the VTR/source selector keys (P1–P4) selected, the initial speed for slow-motion editing is indicated on the player time display unit. No display appears if the VTR/source selector key has selected a source whose initial speed has not been set.

2. **SPEED→initial speed→ENTER**
   This sequence sets the initial speed for slow-motion editing. First press the SPEED button, then use the number keys to input the initial speed using the normal tape play speed as 100%, and then press the ENTER key. Any initial speed from −100% to +300% can be set.

3. **SPEED→C→ENTER**
   This returns the initial speed to the normal tape play speed.

4. **MRK-SPD (SHIFT+SPEED)**
   This sequence sets the initial speed for slow-motion editing. Press the VAR/SHTL button to set the player operation unit's dial to the VAR mode, turn the dial to the desired speed, and then press this button. If the button is pressed while the VTR is playing a tape, the initial speed is canceled.

1. GPI

While this is pressed, the GPI1 setting time is displayed. GPI1 determines the trigger signal output time for up to two locations for each event. When the time setting is for one location only, the time appears on the player time display unit; when it is for two locations, it appear on both the player time and recorder time display units.

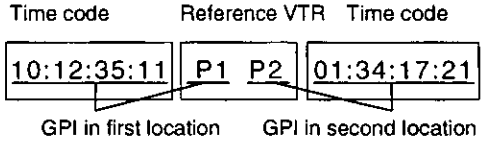
2. GPI→time→ENTER

This sequence sets the GPI using a time code.

[Reference1] The GPI display is as follows depending on the status which has been set.

•8-digit time code displayed

The VTR's time code is used to set this. The VTR used as the reference is indicated on the center display unit.



•"Fi," "to" or other characters and the time code in up to 4 digits are displayed.
This is set as a relative time in which the edit point serves as the reference. Even if the edit point is changed, the relative time remains the same.

3. GPI→+→split amount→ENTER

With the edit start point, effect point and edit end point as the references, this sequence sets the GPI in such a way that it is output after the reference point.

4. GPI→−→split amount→ENTER

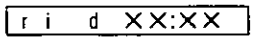
With the edit start point, effect point and edit end point as the references, this sequence sets the GPI in such a way that it is output ahead of the reference point.

5. MRK-GPI (SHIFT+GPI)

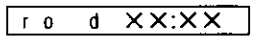
This reads the time code of the selected VTR and sets the GPI output time.

[Reference2] The edit point to serve as the reference for GPI output can be selected by the VTR/ source selector key status and the number of times the "+" or "−" button is pressed. The following examples of displays apply when the "+" button is pressed.

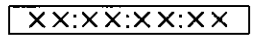
For the recorder



Set as a relative time from REC IN

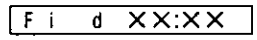


Set as a relative time from REC OUT

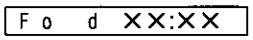


Set with a time code

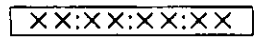
For the FROM source



Set as a relative time from FROM IN

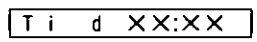


Set as a relative time from FROM OUT

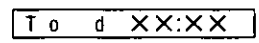


Set with a time code

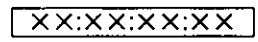
For the TO source



Set as a relative time from TO IN



Set as a relative time from TO OUT



Set with a time code

Table of Key Functions

Numerical input key

1. **0**
   Use this to input "0" when setting edit data, etc.
2. **DISP (SHIFT+0)**
   This selects whether the status or video signals input to the MONITOR IN connector are to be output to the monitor.
3. **STATUS DISP (ENTER+0)**
   This selects the display contents when a status is indicated in the monitor output.

1. **1**
   Use this to input "1" when setting edit data, etc.
2. **DUMP (SHIFT+1)→ENTER**
   This transfers the edit data (EDL) to a personal computer or other external device. The output format is assigned by EDL FORMAT on the SET UP menu.
3. **DUMP (SHIFT+1)→1→ENTER**
   This transfers the edit data (EDL) using the AG-A850 format.
4. **DUMP (SHIFT+1)→2→ENTER**
   This transfers the edit data (EDL) using the CMX340 format.
5. **DUMP (SHIFT+1)→3→ENTER**
   This transfers the SET UP data.

1. **2**
   Use this to input "2" when setting edit data, etc.
2. **LOAD (SHIFT+2)→ENTER**
   This loads the edit data from a personal computer or other external device into the EDL memory inside the unit. The AG-A850, AG-A800 or CMX340 format can be input. The SET UP data can also be loaded.

1. **3**
   Use this to input "3" when setting edit data, etc.
2. **T SET (SHIFT+3)→time→ENTER**
   This sets the default TC setting for TC insert editing or manual recording.

1. **4**
   Use this to input "4" when setting edit data, etc.
2. **LIST (SHIFT+4)**
   This displays the edit data on the monitor.
3. **LIST (SHIFT +4)→function selection→ENTER**
   Press this to delete, move or copy edit data as a list management. For details, refer to the data management.

1. **5**
   Use this to input "5" when setting edit data, etc.
2. **CORCT (SHIFT+5)**
   Press this to change the edit data already entered in the EDL memory. When event numbers have been changed using the FS, BS and EVENT buttons, the edit data already entered in the EDL memory will remain unchanged.

1. **6**
   Use this to input "6" when setting edit data, etc.
2. **TRACK (SHIFT+6)**
   Press this for time tracking between the present point and edit point of the previous event.

[Reference] Set AUTO TAG on SET UP to R/P for automatic time tracking to be initiated by pressing the FS button.

1. **7**
   Use this to input "7" when setting edit data, etc.
2. **SET UP (SHIFT+7)**
   Press this to proceed with the SET UP operation. For details, refer to Appendix A (Table of System Settings).

1. **8**
   Use this to input "8" when setting edit data, etc.
2. **CONFIG (SHIFT+8)**
   Press this to proceed with the CONFIG operation. For details, refer to Appendix A (Table of System Settings).

1. **9**
   Use this to input "9" when setting edit data, etc.
2. **INFO (SHIFT+9)**
   This displays on the recorder time display unit the code of the error which occurred last and on the player time display unit the software control code. For details of error numbers and remedial action, refer to Appendix C (Table of Error Numbers).

1. **[~]**
   Use this to input the start or end event number for deleting or moving edit data (EDL).
2. **F/TC (SHIFT+[~])**
   This selects whether the numbers are to be input with a time code or in frame units.

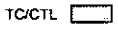
1. "+"
   This is used when setting the edit data.
2. **FS (SHIFT+"+")**
   Press this to change to the next event. In the SET UP mode, it changes the page.
3. **TRIM IN+(IN+"+")**
   This adds one frame to the edit IN point which has been set. (Trimming)
4. **TRIM OUT+(OUT+"+")**
   This adds one frame to the edit OUT point which has been set. (Trimming)
5. **TRIM DUR+(DUR+"+")**
   This adds one frame to the duration which has been set. (Trimming)

1. "−"
   This is used when setting edit data.
2. **FS (SHIFT+"−")**
   Press this to change to the previous event. In the SET UP mode, it changes the page.
3. **TRIM IN+(IN+"−")**
   This subtracts one frame from the edit IN point which has been set. (Trimming)
4. **TRIM OUT+(OUT+"−")**
   This subtracts one frame from the edit OUT point which has been set. (Trimming)
5. **TRIM DUR+(DUR+"−")**
   This subtracts one frame from the duration which has been set. (Trimming)

1. **C**
   This is used to clear edit data, etc.
2. **EXIT (SHIFT+C)**
   Press this to suspend the input of edit points or other data at any time. In the SET UP mode, the settings will be lost and the mode exited.

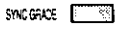
1. **ENTER**
   This is used to set edit data, etc.
2. **RETURN (SHIFT+ENTER)**
   Press this to suspend the input of edit points or other data at any time. In the SET UP or CONFIG mode, the settings will be entered and the mode exited.

Display unit keys



This switches what is to be shown on the time display of each VTR to the time code or CTL. If a VTR does not have a time code function, CTL always remains set and the time display is not switched.

This resets the time display at the CTL setting.



This switches the synchronization accuracy during editing.

- **ACCURATE:** For synchronization with an accuracy of ±0 frame.
- **±1:** For the synchronization of 1 frame.
- **ROUGH:** If an error has been eliminated even once during synchronization, synchronization is not subsequently performed. The editing accuracy cannot be guaranteed.
- **OFF:** No synchronization
  No warranty for the editing accuracy is given at this setting.

- **[Reference]** When COLOR FRAMING of SET UP has been set to ON, editing is automatically conducted at the ROUGH setting even if SYNC GRADE has been set to ACCURATE or ±1.

[Note] When setting has been made to ACCURATE, +/−1 or ROUGH, input the external reference signal to the REF VIDEO IN connector.

Table of Error Numbers

Table of error numbers

When the INFO (SHIFT+9) button is pressed, the code of the error or warning which occurred last appears on the recorder's time display unit. One of the following messages is displayed on the last two lines of the monitor display.

- Error message

```
ERROR :
XXXXXXXXXXXXXX
```

- Warning message

```
WARNING :
XXXXXXXXXXXXXX
```

Error code	Monitor display	Description/remedial action
Err0000	NO ERROR	No errors have occurred since the power was turned on.
Err0001	CANNOT CHANGE MODE	Editing mode cannot be changed. Release editing mode before selecting assemble, insert or TC editing mode.
Err0002	TC ERROR	Input time code is not correct.
Err0003	UNDEFINE IN POINT	Edit IN point has not been set or is wrong.
Err0004	UNDEFINE OUT POINT	Edit OUT point has not been set or is wrong.
Err0005	INVALID REC POINT	Recorder VTR's edit IN point is higher value than OUT point.
Err0006	UNDEFINE SOURCE	Source VTR has not been set.
Err0007	EDIT DATA NOT FOUND	Data to be referenced not found with TRACK.
Err0008	CANNOT LAST ED	Current event No. and recorded event No. are different with LAST ED.
Err0009	EVENT NOT FOUND	Designated event No. has not been entered.
Err0010	EDL OVERFLOW	EDL memory is full.
Err0011	EDL READ ERROR	EDL data has been lost; data of this event has been corrected.
Err0012	EDL WRITE ERROR	EDL data cannot be written. Contact service center.
Err0013	INVALID SPLIT POINT	The split data is incorrect.
Err0099	OPERATE ERROR	An error in operation has been made. Input correctly.

Error code	Monitor display	Description/remedial action
Err0101	VTR xx LOCAL	VTR xx is set to local mode.
Err0102	CANNOT READ TC	VTR's time code cannot be read. Check connections with VTR, etc. Check usable time code (LTC or VITC) and set with CONFIG.
Err0103	CANNOT RECORD	No VTR recording possible. Check whether recorder VTR is set to REC INHI ON or tab on tape has been set to recording inhibit position.
Err0104	TC JUMP FOUND	VTR's TC is discontinuous.
Err0105	CANNOT CUEUP xx	VTR xx cannot search (cue up). VTR's TC may be discontinuous. Change reference signal to CTL, and reset edit points.
Err0106	CANNOT SYNCHRONIZE xx	No synchronization possible. Check VTR xx. Failure to connect REF VIDEO signal, discontinuous TC, wrong VTR parameter in SETUP or incorrect CF PHASE setting may be to blame. Alternatively, editing accuracy cannot be set high with some VTR models, in which case it should be reduced.
Err0107	CANNOT EXECUTE xx	No editing possible. Check VTR xx.

Table of Error Numbers

Error code	Monitor display	Description/remedial action
Err0108	CANNOT CF EDIT	No color frame synchronization possible. Failure to connect REF VIDEO signal, discontinuous TC, wrong VTR parameter in SETUP or incorrect CF PHASE setting may be to blame. Alternatively, color frame editing is not possible with some VTR models.
Err0109	CANNOT REVIEW	No review possible since there is no edit data.
Err0110	CANNOT RESET TC	Resetting not possible except for CTL.
Err0111	CANNOT SWITCH TC	TC cannot be selected. VTR may not have TC function.
Err0112	UNDEFINE SOURCE	No editing possible since player already set as slave has been set as source VTR.
Err0113	CANNOT FIND EVENT	The event to be edited cannot be found.
Err0199	CANNOT OPERATE	This operation is not possible during editing.
Err0201	FORMAT ERROR	Error in loaded data. Only AG-A850/A800 format or CMX340 format data can be loaded.
Err0202	RS232C COMM ERROR	Communication error has occurred when an attempt was made to load or dump data. Check communications protocol and connections of external devices. If devices are connected properly, reduce baud rate at both ends.
Err0203	CANNOT COMM	Response of external device was discontinued during loading or dumping. Check connections with external devices.
Err0299	CANNOT OPERATE	This operation is not possible during dumping or loading.

Table of warning numbers and messages

Error code	Monitor display	Description/remedial action
Err1001	UNDEFINE EDIT MODE	Editing mode has not been set.
Err1002	OVERWRITE EXECUTE	Data in EDL memory has been overwritten.
Err1003	DIFFER FRAME MODE	The frame mode for the time code recorded on the recorder VTR's tape differs from the frame mode for the AG-A850's system settings. Ensure that the frame modes correspond.
Err1103	SW'ER COMM ERROR	Communication error with switcher has occurred.
Err1104	SW'ER LOCAL	Switcher is set to local mode.
Err1105	CANNOT EXECUTE xx	Slave VTR xx cannot be controlled. Use another VTR in place of VTR xx to perform the editing.
Err1202	EDL OVERFLOW	EDL memory overflowed when data was loaded. Up to 512 events only can be loaded.

VTR/Switcher Settings

Panasonic VTR settings

Model	Settings
S-VHS AG-7750, 7750H, 7650, 7650H	1) Set 9P DEVICE TYPE to S-VHS ID. SETUP MENU No. 3002: S-VHS ID (01) 2) Set PLAY DELAY to 0 FRAME. SETUP MENU No. 4003: 0 FRAME (00) 3) To use TC, set switches inside pocket to INT, PRESET and FREE RUN. (For AG-7750(H) only) 4) To use LTC, set audio CH2 switch inside pocket to LTC. 5) Set REMOTE OPERATION to 9P. SETUP MENU No. 3003: 9P (00) 6) Set FRAME SERVO to ON. SETUP MENU No. 4005: ON (01) 7) Set SHORT FF to ON. SET UP MENU No. 1007: ON (01) 8) Set front mode switch to PLAY on player and EDIT on recorder. (For AG-7750(H) only) 9) Set CONTROL SW to REMOTE.
S-VHS AG-DS850, DS840, DS555, DS545, DS550, DS540	1) Set 9P DEVICE TYPE to S-VHS ID. SETUP MENU No. 5002: S-VHS ID (01) 2) Set PLAY DELAY to 0 FRAME. SETUP MENU No. 6004: 0 FRAME (00) 3) To use TC, set to INT and FREE RUN. SETUP MENU No. 7001: INT (00) SETUP MENU No. 7002: FREE RUN (02) SETUP MENU No. 7007: Any setting except UB (02) (For AG-DS850/DS555/DS550 only) 4) To use LTC, set audio CH2 to LTC. SETUP MENU No. 3006: LTC (01) 5) For synchronization, set DIGITAL SLOW SW to OFF or 1. (For AG-DS850/DS840 only) 6) Set FRAME SERVO to ON. SETUP MENU No. 6005: ON (01) 7) Set SHORT FF to ON. SET UP MENU No. 1006: ON (01) 8) Set CONTROL SW to REMOTE.
MII AU-660, 650, 640, 630, 620, 60	1) Set 9P DEVICE TYPE to M2 ID. L6 PCB SW3-5: ON 2) Set PLAY DELAY to 0 FRAME. L6 PCB SW5-1 to 4: OFF (for all models except AU-650/620) 3) To use TC, set to INT, PRESET and FREE RUN. (For AU-660/650/640 only) 4) Set HEAD switch to PLAY on player and R/P on recorder. (AU-660/650/640 only) 5) Set CONTROL switch to REMOTE. **Note:** Color framing editing is not possible with the AU-650.

Model	Settings
MII AU-W35H/R, W33H/R, W32H/R, 665, 66H, 65 (H), 63 (H), 62 (H)	1) Set 9P DEVICE TYPE to M2 ID. SETUP MENU No. 3004: M2 ID (2) 2) To use TC, install AU-F65. (For AU-66H/65(H)/63(H)/62(H) only) 3) To use TC, set to INT, PRESET and FREE RUN. (For AU-W35H/665/66H/65(H) only) 4) Set HEAD switch to PLAY on player and R/P on recorder. (AU-665/66H only) 5) Set CONTROL switch to REMOTE.
DVCPRO AJ-LT75	1) Set ID SEL to DVCPRO ID. SETUP MENU No.200: DVCPRO (1) (for both VTR1 and VTR2) 2) Set PLAY DELAY. SETUP MENU No.301: 0 or 4 (Set to 0 FRAME for VTR1. When VTR2 is set as the recorder, set to 4 FRAME; when it is set as the player, set to 0 FRAME.) 3) To use TC, set to INT, PRESET and FREE RUN. SETUP MENU No.507: P-FREE (1) (Only when VTR2 is set as the recorder) 4) Set CONTROL switch to REMOTE.

[Notes]

- The following VTRs have restrictions concerning color frame editing;
  NTSC: S-VHS format VTR is not for color frame editing.
  PAL: S-VHS format VTR is not for 8-field color framing.
- Removing the covers and changing the switch settings yourself when the switches required for the settings are located inside the VTR may cause electric shock or malfunctioning. Consult with the dealer from whom you purchased the VTR or with a service personnel.

VTR/Switcher Settings

Panasonic VTR settings

Model	Settings
DVCPRO AJ-D750 AJ-D650 AJ-D640	1) Set ID SEL to DVCPRO ID. SETUP MENU No. 202: DVCPRO (1) 2) Set PLAY DELAY to 0 FRAME. SETUP MENU No. 106: 0 FRAME (0) 3) Set 9P SEL to ON. SETUP MENU No. 201: ON (1) 4) Set VAR RANGE to −4 to +4. SETUP MENU No. 300: 1 When this setting is not available: Set VAR STEP to FINE. SETUP MENU No.316: FINE (0) Set VAR FWD MAX to +4.1. SETUP MENU No.317: +4.1 (0) 5) To use TC, set to INT, PRESET and FREE RUN. Set the front panel switch to INT, and the switches inside the pocket to PRESET and FREE RUN. (AJ-D750 only) Set the switch inside the pocket to INT. (AJ-D650 only) SETUP MENU No.504: OFF (0) (AJ-D650 only) SETUP MENU No.510: FREE (1) (AJ-D650 only) 6) Set CONTROL switch to REMOTE.
D5/D3 AJ-D580, D360, D350, D351	1) Set 9P DEVICE ID to DEFAULT. INTERFACE SETUP MENU: DEFAULT 2) Set RS-422 control mode. INTERFACE SETUP MENU: MODE-1 3) To use TC, set to INT, PRESET and FREE RUN. TC/CHR MENU: INT, PRESET, FREE RUN 4) Set CONTROL switch to REMOTE. HOME: REMOTE (for AJ-D350/D351) CONTROL SW: REMOTE (for AJ-D580)

Panasonic DISK settings

Model	Settings
DISK LQ-D5500	1) Set DEVICE TYPE to LQ-D5500. SETUP MENU No. 6-10: LQ-D5500 (0) 2) Set PLAY DELAY to 0 FRAME. SETUP MENU No. 6-3: 0 FRAME (0) 3) Set EDIT DELAY to 3 FRAME. SETUP MENU No. 6-4: 3 FRAME (3) 4) Set TC settings to INT, PRESET and FREE RUN. SETUP MENU No. 4-1: PRESET (0) SETUP MENU No. 4-2: FREE RUN (1) 5) Select CTL mode. For details, see Operating Instructions of LQ-D5500. SETUP MENU No. 5-6: CTL (0)/ATC (1) 6) For color frame editing, set COLOR FRAMING to ON. SETUP MENU No. 6-5: ON (1) 7) Select split mode. For details, see Operating Instructions of LQ-D5500. SETUP MENU No. 6-9: ON (1) 8) Set CONTROL to REMOTE.
DISK LQ-4100	1) Set 9P DEVICE TYPE to LQ-4100. SETUP MENU No. 1-4: A0A1 2) Set EDIT TIMING to 5 FRAME. SETUP MENU No. 1-2: 5 FRAME 3) Align PREROLL TIME with AG-A850. SETUP MENU No. 1-1: 5 SEC (standard) 4) Set CONTROL to REMOTE. **Notes:** •The unit cannot be used as the slave VTR. •Operation may fail depending on the LQ-4100 software version.

•Removing the covers and changing the switch settings yourself when the switches required for the settings are located inside the VTR may cause electric shock or malfunctioning. Consult with the dealer from whom you purchased the VTR or with a service personnel.

VTR/Switcher Settings

JVC VTR Settings

Model	Major settings/precautions when connecting AG-A850
BR-S822 S622 S525 (Including SA-R22)	•Set 9PIN DEVICE TYPE ID to JVC SVHS-1. •Set VIDEO EDIT DELAY to 8 FRAME. •Set AUDIO EDIT DELAY to 8 FRAME. **Note:** TC insert editing is not possible.
BR-S800 (Including SA-K26, SA-R50, SA-N50)	•Set 9PIN DEVICE TYPE ID to JVC SVHS-1. •Set VIDEO EDIT DELAY to 8 FRAME. •Set AUDIO EDIT DELAY to 8 FRAME. •Set SYNCHRONIZATION to ENABLE. **Notes:** •TC insert editing is not possible. •The time code cannot be set during first edit editing. •The edit points may shift out of alignment during audio split editing.
PR-D85 D80	•Set 9PIN DEVICE TYPE ID to JVC D80. •Select INT, FREE and PRESET to set the time code. **Notes:** •When assemble editing or first edit editing is performed, the VTR may fast forward the tape upon completion of the editing. •Editing may not be possible depending on the quality of the slow-motion playback signals of the source VTR. •Color framing editing is not possible.

For details on settings other than those listed above, refer to "System settings" and the manual accompanying each VTR.

Sony VTR settings

Model	Major settings/precautions when connecting AG-A850
BVU-800	CTL editing only
BVU-950	TCG/R optional accessories; no TC insert editing Set TC switch (sub panel) to SERVO LOCK←INT. Set preroll time to 10 sec. or more for color frame editing.
EVO-9800	No phase synchronization; synchronization possible for player; no external synchronization Connect AG-A850 REF IN signal to VIDEO OUT connector on EVO. Set recorder VTR to whose REF IN connector the reference signal is not supplied to incom lock. •SYNC SELECT: NORM (S-VHS) •SYNC: AUTO (MII)
EVO-9850	Reduce SYNC GRADE when phase synchronization has failed.
PVW-2800 PVW-2650 PVW-2600	To set TC, set to INT, PRESET and FREE RUN.
BVW-75	To set TC, set to INT, PRESET and FREE RUN always. Set preroll time to 10 sec. or more for color frame editing.

For details on settings other than those listed above, refer to "System settings" and the manual accompanying the VTR concerned.

- Removing the covers and changing the switch settings yourself when the switches required for the settings are located inside the VTR may cause electric shock or malfunctioning. Consult with the dealer from whom you purchased the VTR or with the equipment manufacturer.
- Changes in the specifications, etc. of the products of other manufacturers may make it impossible to produce the desired operation even under the settings described here.

Switcher settings

<table>
<tr><th>Model</th><th>Major settings/precautions when connecting AG-A850</th></tr>
<tr><td>Common to all models</td><td>1) Set "SW'ER SELECT" on the SETUP menu of the AG-A850 to match the type of unit to be connected.
2) Turn on the lamp on a unit with an EDITOR ENABLE button.
3) When using a switcher which incorporates a frame synchronizer, set the delay frame corresponding to the unit using "DVE DELAY" on the SETUP menu of the AG-A850.</td></tr>
<tr><td>WJ-MX50</td><td>1) Set rear panel EDIT CONTROL switch to RS422.
2) Set analog PCB switches as shown below.
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>SW702</td><td>on</td><td>off</td><td>off</td><td>off</td><td>on</td><td>off</td><td>off</td><td>off</td></tr>
</table></td></tr>
<tr><td>GVG model 100</td><td>1) Set 067714 SIA PCB switches as shown below.
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>S1</td><td>off</td><td>off</td><td>on</td><td>on</td><td>off</td><td>off</td><td>off</td><td>off</td></tr>
<tr><td>S2</td><td>off</td><td>off</td><td>off</td><td>off</td><td>off</td><td>off</td><td>off</td><td>on</td></tr>
</table>
S3: "RS422" display position
S4: "38400" display position
S5: "ON" position
S6: "RS422" display position
2) Press EDITOR ENABLE button so that its lamp lights.</td></tr>
<tr><td>DFS-500</td><td>1) Set the editor selector switch (SY-172 PCB) to BVE-900.
2) Set "SW'ER PVW MODE" on the SETUP menu of the AG-A850 to "EE."</td></tr>
<tr><td>DFS-300</td><td>1) Set the editor selector switch (SY-199 PCB) to PVE-500.
2) Set "SW'ER PVW MODE" on the SETUP menu of the AG-A850 to "EE."
3) Set "SW'ER SELECT" on the SETUP menu of the AG-A850 to "DFS-500."</td></tr>
<tr><td>KM-3000</td><td>1) Set the CPU PCB switches as shown below.
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
<tr><td>S3</td><td>on</td><td>on</td><td>on</td><td>on</td><td>on</td><td>off</td><td>off</td><td>off</td></tr>
<tr><td>S4</td><td>off</td><td>on</td><td>on</td><td>off</td><td>off</td><td>off</td><td>off</td><td>off</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Model</th><th>Major settings/precautions when connecting AG-A850</th></tr>
<tr><td>VPS-300</td><td>1) Set CPU PCB DS2-7 to OFF (initial setting).
2) Set "SW'ER PVW MODE" on the SETUP menu of the AG-A850 to "EE."</td></tr>
</table>

For details on settings other than those listed above, refer to the manual accompanying the video switcher concerned.

- The GVG model 100 is a product manufactured by the Grass Valley Group.
- The DFS-500 and 300 are made by Sony.
- The KM-3000 is made by JVC.
- The VPS-300 is made by FOR.A.

Audio mixer settings

<table>
<tr><th>Model</th><th>Major settings/precautions when connecting AG-A850</th></tr>
<tr><td>Common to all models</td><td>1) Set "MIXER SELECT" on the SETUP menu of the AG-A850 to match the type of unit to be connected.
2) Set the mixer to suit the system (number of channels, etc.).
3) Set the fader levers, LOCAL switch, etc. as appropriate.</td></tr>
<tr><td>PAM-300 (Including PAM-300IF)</td><td>1) Set the PAM-300IF settings to 38.4 kbps, ODD, ESAM-II and frame rate (30F for NTSC; 25F for PAL).
2) Turn on the light in the EDITOR switch.</td></tr>
<tr><td>MXP-S390</td><td>1) Set the MODE switch to EDITOR.</td></tr>
<tr><td>D/ESAM200</td><td>1) Set the internal switches to 38.4 kbps and ODD.
2) Turn on the light in the EDIT I/F switch.</td></tr>
<tr><td>03D (Including 03DVEK)</td><td>1) Set "MIXER SELECT" on the SETUP menu of the AG-A850 to "DESAM200."
2) On the MIDI/HOST page, set:
HOST INTERFACE to EDITOR,
TO EDITOR to ENABLE, and PARITY FLAG to ODD.</td></tr>
</table>

For details on settings other than those listed above, refer to the manual accompanying the audio mixer concerned.

- The PAM-300 is made by FOR.A.
- The MXP-S390 is made by Sony.
- The D/ESAM200 is made by Graham-Patten System.
- The 03D is made by Yamaha.

- Removing the covers and changing the switch settings yourself when the switches required for the settings are located inside the VTR may cause electric shock or malfunctioning. Consult with the dealer from whom you purchased the VTR or with the equipment manufacturer.
- Changes in the specifications, etc. of the products of other manufacturers may make it impossible to produce the desired operation even under the settings described here.

[Concerning setup changes]

Two examples are given here to describe the actual operation methods used. Connect a TV monitor to the MONITOR OUT connector on the AG-A850, and take the action outlined below.

Setting	Operating procedure
How to set the limited operation mode	1) Press the 7 button while holding the SHIFT button. The SET UP menu will now appear on the monitor screen. 2) Press the ENTER button. "SYSTEM CONTROL" now appears at the top of the monitor screen. 3) Press the ENTER button. The cursor (highlighted character) at FUNCTION now moves to the right. 4) Press the "+" button several times until "LIMITED" is displayed as the characters at the cursor position. 5) Press the ENTER button. The cursor moves to the left, and "FUNCTION" is highlighted on the display. 6) Press the ENTER button twice while holding down the SHIFT button. The SET UP menu is now exited, and the limited operation mode is established.
How to set up a multi-recorder editing system	To set up a system for multi-recorder editing in which the tapes in PLAYER-3 and PLAYER-4 are also recorded simultaneously during editing, connect PLAYER-3 to the RS-422 connector PORT-D and PLAYER-4 to PORT-E. 1) Press the 7 button while holding the SHIFT button. The SET UP menu will now appear on the monitor screen. 2) Press the "+" button. The cursor (highlighted character) at FUNCTION now moves downward, and "PORT/CROSSPOINT" is highlighted on the display. 3) Press the ENTER button. "PORT/CROSSPOINT" now appears at the top of the monitor screen. 4) Press the ENTER button. "PORT STATUS" now appears at the top of the monitor screen. 5) Press the "+" button three times. The cursor at PORT-A now moves to PORT-D. 6) Press the ENTER button. The cursor at PORT-D moves to the right. 7) Press the "+" button several times until "P3 (SLAVE)" is displayed as the characters at the cursor position. 8) Press the ENTER button. The cursor moves to the left, and "PORT-D" is highlighted on the display. 9) Press the "+" button. The cursor at PORT-D now moves to PORT-E. 10) Press the ENTER button. The cursor at PORT-E now moves to the right. 11) Press the "+" button several times until "P4 (SLAVE)" is displayed as the characters at the cursor position. 12) Press the ENTER button. The cursor moves to the left, and "PORT-E" is highlighted on the display. 13) Press the ENTER button three times while holding down the SHIFT button. The SET UP menu is now exited, and the multi-recording system is now set up.

[Troubleshooting]

If the editing controller fails to operate properly, check out the points described below. If the trouble persists even after the suggested remedial action has been taken, consult your dealer.

Symptom	Remedial action
•VTR fails to operate. **•The time display fails to light.**	•Have the wrong signals been supplied to the REF VIDEO IN connector? Do not connect the output signals of a VTR which does not have a time base corrector. When the right signals are not available, leave the REF VIDEO IN connector unconnected and set SYNC GRADE to OFF before proceeding with the editing. •Set the CONTROL switch on the VTR to REMOTE (9P). •Has the cassette tape been loaded into the VTR? •Check the connection (9P remote control cable) between the AG-A850 and VTR. •When the PORT to which the VTR is connected is set to NONE, SW'ER or MIXER as the PORT STATUS in SET UP, set it to R or P1/P2/P3/P4 or P1 (SLAVE)/P2 (SLAVE)/P3 (SLAVE)/P4 (SLAVE).
•Time display remains unchanged.	•Has the CTL signal been recorded on the tape? •Use the CTL signal for editing with a VTR which does not handle the time code. •Set TC SOURCE on the CONFIG menu to LTC for a VTR (such as the UVW-1800) which does not handle the VITC. •Set TC SOURCE on the CONFIG menu to VITC when audio channel 2 has not been set to LTC on the S-VHS unit.
•No recording.	•Check whether the accidental recording erasure prevention status has been established for the cassette. •Is a VTR which functions solely as a player (such as the AJ-D640) being used as the recorder VTR? •Is the VTR's REC INHIBIT function ON? •Is the recorder VTR's INPUT switch set to the proper position? •Is the recorder VTR's SERVO LOCK lamp lighted.
•No editing operations.	•For assemble editing, the first edit operation, etc., must be conducted, and recording sections must be present both before and after the edit IN point. •When the time code continuity has been broken, either use the CTL signal for editing or record the time codes. •To conduct color framing editing with "CF REF" on the SETUP menu set to TIME CODE, use CONFIG to set the color frame phase difference between the video signals and time code.
•No editing even when editing is repeatedly retried.	•When performing editing with SYNC GRADE at any setting except OFF, the external reference signal (black burst signal) must be input to the REF VIDEO IN connector of the AG-A850. In a cut editing system, the player VTR's video output signal can be used in place of the signal generated by the sync signal generator. (Extend the preroll time if the editing mode is not readily established. It may not be possible to replace the sync signal generator for a VTR whose sync signals are disturbed during synchronization.)
•Edit points shift out of place.	•Input the external reference signal (black burst signal) to the REF VIDEO IN connector of the AG-A850, and set SYNC GRADE to ACCURATE before proceeding with editing. •Set the VTR's 9P DEVICE TYPE setting to the original ID (refer to the VTR/switcher settings in Appendix D). •Depending on the performance of the VTR, the edit points may shift by 2 frames or so during editing using the CTL signal. •When a video switcher or other unit with a built-in frame synchronizer has been connected between the player VTR and recorder VTR, set the delay frame that matches the unit concerned using "DVE DELAY" on the SETUP menu of the AG-A850. •Synchronization is not performed in slow editing. For this reason, the editing accuracy is impaired. •Depending on the VTR concerned, the edit points may undergo a slight shift. Before editing, take steps to compensate for these shifts.

[Troubleshooting]

If the editing controller fails to operate properly, check out the points described below. If the trouble persists even after the suggested remedial action has been taken, consult your dealer.

Symptom	Remedial action
•Horizontal lines appear on edited pictures.	•The pictures cannot be recorded properly if the slow editing mode is set for a VTR without a slow-motion playback function (AT).
•Playback is unstable.	•Input the appropriate signal (black burst signal) as the external reference signal to be supplied to the VTR and switcher. •In a system using a player VTR without a TBC facility, the playback picture of the recorder VTR may be disturbed if the player VTR is set to a mode other than standard playback (SHTL/JOG operation, GO TO, etc.) when the recorder VTR's reference signal is supplied to the video input connector.
•Edit points differ between recorder and slave VTRs when multi-recorder editing was performed.	•If "CF REF" is set to ALL VTR or R ONLY when color framing editing is conducted, the edit points may shift out of alignment. •When color framing editing is conducted, the edit points may shift out of alignment if the different models are used for the recorder and slave VTRs or when the video and time code phases do not match even when "CF REF" has been set to TIME CODE. •When a VTR (S-VHS [NTSC], etc.) without a color framing editing facility is used for multi-recorder editing, set "COLOR FRAMING" on the SETUP menu to OFF.
•CF phase does not match during first editing.	•The color frame phase cannot be aligned for an S-VHS (PAL) model. Do not set "CF REF" on the SETUP menu to TIME CODE. •CF locking is not possible with an S-VHS (NTSC) or AU-650 (MII) model. For this reason, the color frame phase cannot be aligned. •When performing first edit using a VTR made by another company, the color frame phase may not be aligned. When the VTR has a phase alignment function, operate the VTR itself to perform first editing (formatting).
•Video switcher fails to operate.	•Have the video switcher's internal settings been performed? (Refer to the manual accompanying the switcher or to the VTR/switcher settings in Appendix D). •Check the connection (9P remote control cable) between the AG-A850 and video switcher. •If an EDITOR ENABLE switch is provided, set it to ENABLE. •Is SW'ER used as the PORT STATUS in SET UP for the PORT to which the video switcher is connected? •Does SW'ER MODEL in SET UP match the model being used? •Try turning on the power of the AG-A850 after the video switcher's power has already been switched on.
•Wipe number cannot be set.	•When the GVG100/110 or VPS-300 is connected to the video switcher, set "256" instead of "0" in order to select the wipe number "0" pattern.
•Audio mixer fails to operate.	•Have the audio mixer's internal settings been performed? (Refer to the manual accompanying the mixer.) •Check the connection (9P remote control cable) between the AG-A850 and audio mixer. •If an EDITOR ENABLE switch is provided, set it to ENABLE. •Some audio mixer models fail to operate unless an external reference signal is supplied. •Is MIXER used as the PORT STATUS in SET UP for the PORT to which the audio mixer is connected? •Does MIXER MODEL in SET UP match the model being used?

[Troubleshooting]

If the editing controller fails to operate properly, check out the points described below. If the trouble persists even after the suggested remedial action has been taken, consult your dealer.

Symptom	Remedial action
•Wrong picture appears. **•No picture appears.**	•Check the video cable. •Has SW'ER CROSSPOINT in SET UP been set properly? •Have the INPUT switches on the video switcher and recorder VTR been set properly?
•Wrong sound is heard. **•No sound is heard.**	•Check the audio cable. •Has MIXER CROSSPOINT in SET UP been set properly? •Has the volume on the audio mixer or speakers been turned down? •Have the INPUT switches on the audio mixer and recorder VTR been set properly?
•Failure to operate properly.	•If incorrect SET UP data is loaded using the LOAD function or some other operation is amiss, the AG-A850 may no longer operate properly. Consult a servicing representative.

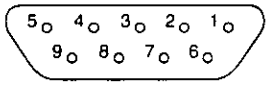
[Supplementary notes]

Item	Description
•Concerning the SPECIAL setting for "FUNCTION" on the SETUP menu	•In this mode, the following functions are added to the SINGLE DIAL mode. 1. The OUT point is not searched upon completion of editing. 2. The recorder VTR can be operated as soon as editing is completed. 3. Simple clean-up is performed upon completion of new event editing. (If the recorder's edit IN point is in the editing section of the previous event, the edit OUT point of the previous event is automatically corrected to the same value as the IN point.) **Notes:** Clean-up is not conducted when the previous event did not involve simple cut editing such as A/B roll editing or slow-motion editing, for example. In addition, some data such as the split point on the OUT side may be lost.
•Concerning the "COLOR FRAMING" on the SETUP menu	•Restrictions are placed on color framing editing by some VTRs. **VTRs which cannot perform color framing editing:** •S-VHS units (NTSC) •Some S-VHS (PAL) units (AG-7700, AG-7600) •Some MII (NTSC) units (AU-650) **VTRs whose on color framing editing functions fall under restrictions:** These units cannot perform 8-field color framing editing. Neither is it possible to align the color framing phase. "CF REF" should therefore be set to ALL VTR or R ONLY. •All S-VHS (PAL) units (except AG-7700, AG-7600) **VTRs which can perform color framing editing:** •MII units (except AU-650) •DVCPRO •D3, D5, etc.

Connector Signals

When connecting the GPI and RS-232C connectors, make sure that the number of cable conductors and pins match up. Use shielded cables and connect the shield to the plug case.

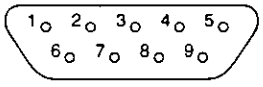
RS-422 connector



Female

Pin no.	Signal
1	GND
2	RECEIVEA
3	TRANSMITB
4	TRANSMITCOMMON
5	SPARE
6	RECEIVE COMMON
7	RECEIVEB
8	TRANSMITA
9	GND

RS-232C connector

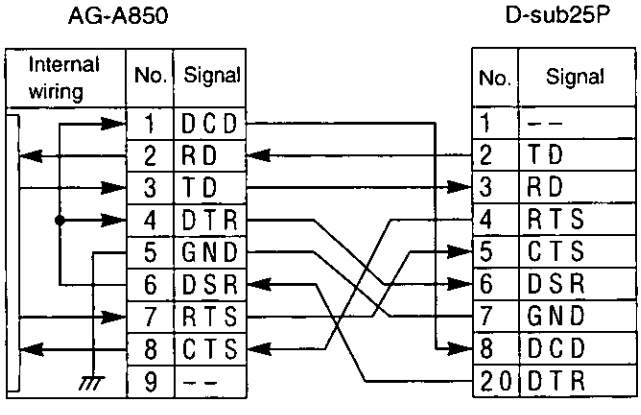


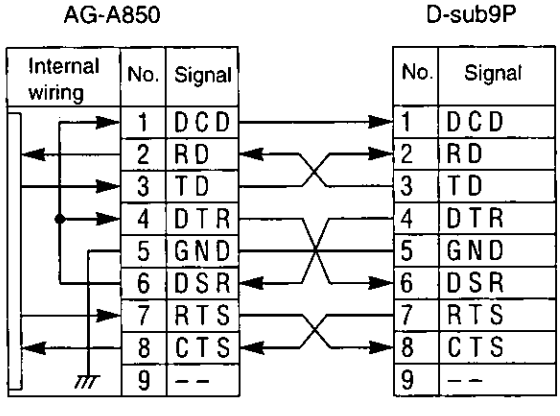
Male

Pin no.	Signal
1	DCD
2	RD
3	TD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	-- --

Connection with external devices (RS-232C recommended wiring)

The wiring connections shown in the figures below are recommended for the AG-A850. Depending on the specifications of the external device concerned (personal computer, etc.), there are a few other alternative methods.





Interlink cable specifications

Specifications

GENERAL

Power supply:	AC 120V, 50–60 Hz
Power consumption:	9 W
Ambient operating temperature:	5 to 40 degrees Celsius
Ambient operating humidity:	35 to 80%
Dimensions:	16¾" (W)×4¼" (H)×11" (D) 424×107×279 mm
Weight:	7.04 lbs (3.2 kg) (main unit only; cables, etc. excluded)

EDITING FUNCTIONS

System:	Microcomputer
Memory capacity:	512 events
Editing modes:	Insert/assemble editing of video, audio 1, audio 2, audio 3 and audio 4; cut editing; A/B roll editing, audio split editing, color frame editing, slow-motion editing
Editing reference:	CTL, SMPTE time code, VITC
Editing accuracy:	±0 frame (time code editing, excluding slow-motion editing)

CONNECTORS

RS-422 connector:	9P×6
RS-232C connector:	9P×2 (including 1 spare)
GPI connectors:	Phono jack×2 (TTL level output [LOW: 0–0.5 V (10 mA), HIGH: 3.0–5 V (−1 mA)])
MONITOR IN connector:	BNC×1 (composite video signal: 1.0 Vp-p±0.2 Vp-p, 75 ohms)
MONITOR OUT connector:	BNC×1 (composite video signal: 1.0 Vp-p±0.2 Vp-p, 75 ohms)
REF VIDEO IN connector:	BNC×1, 75 ohms ON/OFF (composite video signal: 1.0 Vp-p±0.2 Vp-p, 75 ohms) (TV system for MONITOR IN/OUT and REF VIDEO IN connectors can be switched between NTSC and PAL by internal setting.)

CONTROL SYSTEM

No. of connectable VTRs:	5 (including 1 to 3 recorders)
Connectable VTRs:	VTRs, etc. with 9P remote connector
MII:	AU-W35H, W33H, W32H, 66H, 65(H), 63(H), 62(H), 665, 660, 650, 640, 630, 620 series
S-VHS:	AG-DS850, DS840, DS555, DS545, DS550, DS540, 7750(H), 7650(H)
DVCPRO:	AJ-D750, D650, D640, LT75
D-5:	AJ-D580
D-3:	AJ-D350, D351, D360
DISK:	LQ-D5500

(Some models may be restricted in terms of editing accuracy, slow-motion editing and other editing functions.)
(Consult your dealer concerning other compatible VTRs.)

Connectable switcher: WJ-MX50, GVG-100/110
(Consult your dealer concerning other compatible switchers.)

Connectable mixer: PAM300, D/ESAM200, 03D+03DVEK
(Consult your dealer concerning other compatible mixers.)

Accessories: Power cord (×1)

Optional accessory: AU-C5 9P remote control cable

Company and product names appearing in this manual are the trademarks or registered trademarks of the companies concerned.

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Broadcast & Television Systems Company

Division of Matsushita Electric Corporation of America

Executive Office:
One Panasonic Way (3F-5), Secaucus, NJ 07094

Eastern Regional Office: 54 West Gude Drive, Rockville, MD 20850
Central Regional Office: 1707 North Randall Road, Elgin, IL 60123
Southern Regional Office: 1225 Northbrook Parkway, Suite 107A, Suwanee, GA 30174
Western Regional Office: 6550 Katella Ave., Cypress, CA 90630

Panasonic Canada Inc.
5770 Ambler Drive, Mississauga, Ontario L4W 2T3

Panasonic Sales Company
Division of Matsushita Electric of Puerto Rico Inc.
San Gabriel Industrial Park, 65th Infantry Ave., Km. 9.5, Carolina, Puerto Rico 00630

Printed in Japan
VQT7121-1

F0597H1078 D